

**LEAM-CDR
Parts Application Analysis**

NO. REV. NO.
ATM-014
PAGE 1 OF 58
DATE June 8, 1971



**Aerospace
Systems Division**

The purpose of this ATM is to document the results of the Parts Application Analysis study performed on the LEAM Experiment at.

The stress level shown was determined on the basis of the electronic piece parts operating at this worst case values of resistance, capacitance, etc., and worst case application of voltage and current levels. Operating temperatures were established at 45°C.

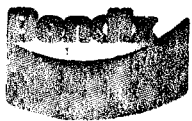
The attached sheets demonstrate that all parts are applied within both the LEAM and Bendix operating criteria. From the analysis it can be concluded that LEAM is designed in a manner to insure that the reliability and two (2) years operating rationale life requirements of the LEAM can be met.

Prepared by:


G. R. Van Hoorde
LEAM Reliability P.E.

Approved by:


S. J. Ellison, Manager
ALSEP Reliability



**Aerospace
Systems Division**

**LEAM-CDR
Parts Application Analysis**

NO.	REV. NO.
ATM-1014	
PAGE 2	OF 58
DATE June 8, 1971	

LEAM SUMMARY OF PARTS APPLICATION ANALYSIS

ELECTRONICS

<u>Component</u>	<u>Derating</u>	<u>ATM-241 Ratings</u>
IC's Digital	40 to 60% of fan-out	75% or less of Manufacturer's rating
Transistors	1 to 10% of rated Power	50% of rated Power
Capacitors	1 to 50% of rated voltage	50-60% of rated voltage
Resistors	1 to 35% of rated Power	50% of rated Power
Diodes	1 to 20% of rated Power	50% of rated Power

PARTS APPLICATION ANALYSIS
SUMMARY

PROJECT: LEAMDATE: 6/8/71

ASSEMBLY: _____ SUB ASSEMBLY: _____

SCHEMATIC NO: _____

DEVICE TYPE	TOTAL NO. USED	TOTAL FAILURE RATE	COMMENTS
CAPACITORS	78	.0780	
RESISTORS	263	.3945	
DIODES	62	.0620	
TRANSISTORS	67	.1005	
RELAYS	12	.0240	
TRANSFORMERS	3	.0090	
CONNECTORS			
COILS & CHOKES	5	.0050	
		.6730	

TOTAL ASSEMBLY FAILURE RATE .6730 %/1000 HOURSMEAN-TIME-TO-FAILURE 140,000 HOURS

MISSION SUCCESS PROBABILITY _____



TIER corporation
California 90503

PAGE 1

ATM 1014
CONTRAC

4

ATING AND STRESS DATA

SPEC. NO. 1012.100.9

MODEL NO.

DIGITAL, I.C.

ALSEP INTERFACE ①

CIRCUIT SYMBOL	PART NUMBER	MANUFACTURER	TEMP APPLIED RATED	SUPPLY VOLTAGE APPLIED RATED	INPUT VOLTAGE APPLIED RATED	OUTPUT CURRENT O STATE APPLIED, I STATE RATED	RELIABILITY COMMENTS
32H-PIN 8	T28901-5	AMELCO	+65	5.0	5.0	180 uA 10 uA	
			+125	6.8	6.8	260 uA 60 uA	
32H-PIN 11	T28901-5	"	+65	5.0	5.0	180 uA 10 uA	
			+125	6.8	6.8	260 uA 60 uA	
33H-PIN 6	T28901-5	"	+65	5.0	5.0	180 uA 10 uA	
			+125	6.8	6.8	260 uA 60 uA	
33H-PIN 11	T28901-5	"	+65	5.0	5.0	180 uA 10 uA	
			+125	6.8	6.8	260 uA 60 uA	
33H-PIN 8	T28901-5	"	+65	5.0	5.0	180 uA 10 uA	
			+125	6.8	6.8	260 uA 60 uA	
34H-PIN 12	SM54L30	T.I.	+65	5.0	5.0	LOAD TO LOAD TO	
			+125	8.0	5.5	ALSEP ALSEP	
33H-PIN 3	T28901-5	AMELCO	+65	5.0	5.0	180 uA 10 uA	
			+125	6.8	6.8	260 uA 60 uA	
34J-PIN 10	SM54L04	T.I.	+65	5.0	5.0	520 uA 80 uA	
			+125	8.0	5.5	1800 uA 100 uA	
[ALL OTHER GATES IN THE SHIFT CLOCK CIRCUIT HAVE THE SAME STRESS AS]							
[33H-PIN 3 AND 34J-PIN 10]							
32J-PIN 3	T28901-5	AMELCO	+65	5.0	5.0	52 uA 8 uA	
			+125	6.8	6.8	260 uA 60 uA	
22J-PIN 11	T28901-5	"	+65	5.0	5.0	130 uA 20 uA	
			+125	6.8	6.8	260 uA 60 uA	
22J-PIN 6	T28901-5	"	+65	5.0	5.0	130 uA 20 uA	
			+125	6.8	6.8	260 uA 60 uA	



ZERO corporation
California 90503

ATM 107
CONTRAL

SPEC. NO. 10121009

MODEL NO._____

DIGITAL, I.C.

ALSEP INTERFACE ②

[illegible]

ATING AND STRESS DATA

SPEC. NO. 10121009

MODEL NO. _____

DIGITAL .I.C.

CLOCK, POWER ON RESET

CIRCUIT SYMBOL	PART NUMBER	MANUFACTURER	TEMP APPLIED RATED	SUPPLY VOLTAGE APPLIED RATED	INPUT VOLTAGE APPLIED RATED	OUTPUT CURRENT				RELIABILITY COMMENTS
						'0' STATE	APPLIED RATED	'1' STATE		
7K-PIN12	SM54L04	T. I	+65	5.0	5.0	360	11A	20	11A	
			+125	8.0	5.5	1800	"	100	"	
7K-PIN8	SM54L04	"	+65	5.0	5.0	720	"	40	"	
			+125	8.0	5.5	1800	"	100	"	
7K-PIN14	SM54L04	"	+65	5.0	5.0	900	"	50	"	
			+125	8.0	5.5	1800	"	100	"	
7K-PINS2,6,10	SM54L04	"	+65	5.0	5.0	1626	"	120	"	
			+125	8.0	5.5	5400	"	300	"	
6J-PINS8,10,14	SM54L04	"	+65	5.0	5.0	1626	"	120	"	
			+125	8.0	5.5	5400	"	300	"	
6J-PINS2,6,12	SM54L04	"	+65	5.0	5.0	832	"	92	"	
			+125	8.0	5.5	5400	"	300	"	
7J-PIN3	T28901-5	AMELCO	+65	5.0	5.0	26	"	4		
			+125	6.8	6.8	260	"	60	"	
6H-PIN3	T28901-3	"	+65	5.0	5.0	78	"	12	"	
			+125	6.8	6.8	260	"	60	"	
6H-PINS6,8,11	T28901-5	"	+65	5.0	5.0	180	"	10	"	
			+125	6.8	6.8	260	"	60	"	
6G-PIN6	SM54L04	"	+65	5.0	5.0	598	"	64	"	
			+125	8.0	5.5	1800	"	100	"	
6G-PIN8	SM54L04	"	+65	5.0	5.0	576	"	56	"	
			+125	8.0	5.5	1800	"	100	"	
6G-PIN10	SM54L04	"	+65	5.0	5.0	876	"	56	"	
			+125	8.0	5.5	1800	"	100	"	



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Terry Corporation
California 90503

ATM 101
CONTRACTOR

SPEC. NO. 1012100.9

MODEL NO.

ATING AND STRESS DATA

DIGITAL, I.C.

ANALOG MUX COUNTER

CIRCUIT SYMBOL	PART NUMBER	MANUFACTURER	TEMP	SUPPLY VOLTAGE	INPUT VOLTAGE	OUTPUT CURRENT		RELIABILIT
			APPLIED RATED	APPLIED RATED	APPLIED RATED	O STATE	I STATE	
25K-PIN14	SM54L04	T. I	+65	5.0	5.0	234	11A	24
			+125	8.0	5.5	1800	"	100
22J-	T28901-9	AMELCO	+65	5.0	5.0	130	"	20
			+125	6.8	6.8	260	"	60
23J-	T28901-9	"	+65	5.0	5.0	104	"	16
			+125	6.8	6.8	260	"	60
24J-	T28901-9	"	+65	5.0	5.0	109	"	16
			+125	6.8	6.8	260	"	60
25H-PIN8,11	T28901-5	"	+65	5.0	5.0	26	"	4
			+125	6.8	6.8	260	"	60
24H-PIN8	T28901-7	"	+65	5.0	5.0	26	"	4
			+125	6.8	6.8	260	"	60
25H-PIN3	T28901-5	"	+65	5.0	5.0	26	"	4
			+125	6.8	6.8	260	"	60
25J-PIN3,11								
25D-PIN6	T28901-5	"	+65	5.0	5.0	26	"	4
			+125	6.8	6.8	260	"	60
25H-PIN6								
5J-PIN6,8								

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ToriTERO corporation
California 90503ATM 101/
CONTRAC

SPEC. NO. 10121009

ATING AND STRESS DATA

DIGITAL, I.C.

SINGLE SENSOR

MODEL NO. _____

MAIN MIC CONTROL & PHA

CIRCUIT SYMBOL	PART NUMBER	MANUFACTURER	TEMP APPLIED RATED	SUPPLY VOLTAGE APPLIED RATED	INPUT VOLTAGE APPLIED RATED	OUTPUT CURRENT				RELIABILIT COMMENTS
						O STATE	APPLIED RATED	I STATE		
220K-Pin3	T28901-5	AMELCO	+65	5.0	5.0	104	4A	12	4A	
			+125	6.8	6.8	260	"	60	"	
21K-Pin1	T28901-7	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
219K-	T28901-9	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
220K-Pin11	T28901-5	"	+65	5.0	5.0	52	"	8	"	
			+125	6.8	6.8	260	"	60	"	
20K-Pin8	T28901-5	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
24K-Pin8	T28901-5	"	+65	5.0	5.0	156	"	16	"	
			+125	6.8	6.8	260	"	60	"	
118K-	T28901-9	"	+65	5.0	5.0	52	"	8	"	
			+125	6.8	6.8	260	"	60	"	
28K-	T28901-9	"	+65	5.0	5.0	52	"	8	"	
			+125	6.8	6.8	260	"	60	"	
228J-Pin3	T28901-5	"	+65	5.0	5.0	52	"	8	"	
			+125	6.8	6.8	260	"	60	"	
21K-Pin8	T28901-7	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
19J, 220J	T28901-9	"	+65	5.0	5.0	156	"	20	"	
			+125	6.8	6.8	260	"	60	"	
21J-	T28901-9	"	+65	5.0	5.0	78	"	12	"	
			+125	6.8	6.8	260	"	60	"	
20K	T28901-5	"	+65	5.0	5.0	180	"	10	"	
			+125	6.8	6.8	260	"	60	"	
25K-Pin2	SM54204	F.I	+65	5.0	5.0	360	"	20	"	
			+125	8.0	5.5	1800	"	100	"	

ATING AND STRESS DATA

SPEC. NO. 10121009

MODEL NO. _____

DIGITAL .I.C.

CALIBRATE LOGIC

CIRCUIT SYMBOL	PART NUMBER	MANUFACTURER	TEMP APPLIED RATED	SUPPLY VOLTAGE APPLIED RATED	INPUT VOLTAGE APPLIED RATED	OUTPUT CURRENT				RELIABILITY COMMENT
						O STATE	APPLIED RATED	I STATE		
Z18H-PN11	T28901-5	AMELCO	+65	5.0	5.0	26	11H	4	11H	
			+125	6.8	6.8	260	"	60	"	
Z18H-PN3	T28901-5	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
Z18H-PN8	T28901-5	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
Z19H-PN1	T28901-7	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
Z20H-	T28901-9	"	+65	5.0	5.0	130	"	20	"	
			+125	6.8	6.8	260	"	60	"	
Z21H-	T28901-9	"	+65	5.0	5.0	52	"	8	"	
			+125	6.8	6.8	260	"	60	"	
Z23F-	T28901-9	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
Z23D	T28901-9	"	+65	5.0	5.0	56	"	8	"	
			+125	6.8	6.8	260	"	60	"	
Z22H-PNS1,8	T28901-7	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
Z23H-PNS3,11	T28901-5	"	+65	5.0	5.0	-	-	-	-	
			+125	6.8	6.8	260	"	60	"	
Z24K-PN6	T28901-5	"	+65	5.0	5.0	78	"	12	"	
			+125	6.8	6.8	260	"	60	"	
Z18H-PN6	T28901-5	"	+65	5.0	5.0	78	"	8	"	
			+125	6.8	6.8	260	"	60	"	
Z22H-PNS6,8	T28901-5	"	+65	5.0	5.0	180	"	10	"	
			+125	6.8	6.8	260	"	60	"	
Z25K-PNS8,10	SMS4204	T.I	+65	5.0	5.0	900	"	50	"	
			+125	8.0	8.0	1800	"	100	"	
18T-	T28901-9	AMELCO	+65	5.0	5.0	72	"	12	"	
			+125	6.8	6.8	260	"	60	"	

AGING AND STRESS DATA

MODEL NO.

DIGITAL I.C.

SINGLE SENSOR
TRANSFER CONTROL LOGIC (1)

CIRCUIT SYMBOL	PART NUMBER	MANUFACTURER	TEMP APPLIED RATED	SUPPLY VOLTAGE APPLIED RATED	INPUT VOLTAGE APPLIED RATED	OUTPUT CURRENT		RELIABILITY COMMENTS
						O STATE	I STATE	
25K-PIN 6	SM54L04	T.I.	+65 +125	5.0 8.0	5.0 5.5	360 uA 1800 "	20 uA 100 "	
26K	SM54L73	"	+65 +125	5.0 8.0	5.0 5.5	104 1800 "	12 100 "	
27K	T28901-9	AMELCO	+65 +125	5.0 8.0	5.0 5.5	— 260 "	— 60 "	
26J-PIN 5	T28901-5	"	+65 +125	5.0 6.8	5.0 6.8	26 260 "	4 60 "	
26, 8, 11								
27J-PIN 18	T28901-7	"	+65 +125	5.0 6.8	5.0 6.8	26 260 "	4 60 "	
26H, 237H	T28901-9	"	+65 +125	5.0 6.8	5.0 6.8	78 260 "	12 60 "	
28H								
28J-PIN 8, 11	T28901-5	"	+65 +125	5.0 6.8	5.0 6.8	26 260 "	4 60 "	
28J-PIN 6	T28901-5	"	+65 +125	5.0 6.8	5.0 6.8	78 260 "	12 60 "	
31H-PIN 11	T28901-5	"	+65 +125	5.0 6.8	5.0 6.8	26 260 "	4 60 "	
31H-PIN 8	T28901-5	"	+65 +125	5.0 6.8	5.0 6.8	26 260 "	4 60 "	
29J-PIN 1	T28901-7	"	+65 +125	5.0 6.8	5.0 6.8	52 260 "	8 60 "	
29K-PIN 8	T28901-7	"	+65 +125	5.0 6.8	5.0 6.8	180 260 "	10 60 "	
29H-PIN 11	T28901-7	"	+65 +125	5.0 6.8	5.0 6.8	180 260 "	10 60 "	
29H-PIN 8	T28901-7	"	+65 +125	5.0 6.8	5.0 6.8	180 260 "	10 60 "	
29H-PIN 1	T28901-7	"	+65 +125	5.0 6.8	5.0 6.8	180 260 "	10 60 "	



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CONTRACTOR

SPEC. NO. 10121039

MODEL NO.

RATING AND STRESS DATA

DIGITAL, I.C.

SINGLE SENSOR
TRANSFER CONTROL LOGIC ②

[illegible]



ZERO Corporation
Torrance, California 90503

ATM 10.
CONTRACTOR _____

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RATING AND STRESS DATA

SPEC. NO. 10121009

MODEL NO. _____

DIGITAL .I.C.

DUAL SENSOR 1- A FILM ID, PHA, ACCUM ①

CIRCUIT SYMBOL	PART NUMBER	MANUFACTURER	TEMP ^o APPLIED RATED	SUPPLY VOLTAGE APPLIED RATED	INPUT VOLTAGE APPLIED RATED	OUTPUT CURRENT		RELIABILITY COMMENT
						'O' STATE	'I' STATE	
Z3D-PIN 3,8	SMS4L00	T. I	+65	5.0	5.0	206 μ A	14 μ A	
			+125	8.0	5.5	1800 "	100 "	
Z3D-PIN 5,14	SMS4L00	"	+65	5.0	5.0	360 "	20 "	
			+125	8.0	5.5	1800 "	100 "	
Z5D-PIN 3,8	SMS4L00	"	+65	5.0	5.0	360 "	20 "	
			+125	8.0	5.5	1800 "	100 "	
Z5D-PIN 5,14	SMS4L00	"	+65	5.0	5.0	206 "	14 "	
			+125	8.0	5.5	1800 "	100 "	
Z1B-PIN 2	SMS4L20	"	+65	5.0	5.0	180 "	10 "	
			+125	8.0	5.5	1800 "	100 "	
Z2D-PIN 12	SM54L30	"	+65	5.0	5.0	180 "	10 "	
			+125	8.0	5.5	1800 "	100 "	
Z11B-PIN 3	SM54L00	"	+65	5.0	5.0	180 "	10 "	
			+125	8.0	5.5	1800 "	100 "	
Z9D,Z7D,Z8D	T28901-7	AMELCO	+65	5.0	5.0	78 "	12 "	
			+125	6.8	6.8	260 "	60 "	
Z11B-PIN 5	SM54L00	T. I	+65	5.0	5.0	360 "	20 "	
			+125	8.0	5.5	1800 "	100 "	
Z11D-PIN 8	T28901-7	AMELCO	+65	5.0	5.0	26 "	4 "	
			+125	6.8	6.8	260 "	60 "	
Z11D-PIN 1	T28901-7	"	+65	5.0	5.0	180 "	10 "	
			+125	6.8	6.8	260 "	60 "	
Z11C,Z12C,Z12D	T28901-9	"	+65	5.0	5.0	78 "	12 "	
			+125	6.8	6.8	260 "	60 "	
Z4D-PIN 3,6,8,11	T28901-5	"	+65	5.0	5.0	78 "	5 "	
			+125	6.8	6.8	260 "	60 "	
Z6D-PIN 3,6,8,11	T28901-5	"	+65	5.0	5.0	78 "	8 "	
			+125	6.8	6.8	260 "	60 "	
Z10B-PIN 3,6	T28901-5	"	+65	5.0	5.0	78 "	8 "	
			+125	6.8	6.8	260 "	60 "	
Z10B-PIN 3,6,8,11	T28901-7	AMELCO	+65	5.0	5.0	26 "	4 "	
			+125	6.8	6.8	260 "	60 "	

B 10-4 STRES DATA SAME H N FILM SENSOR DATA



ATING AND STRESS DATA

CONTRACT

SPEC. NO. 1012100?

MODEL NO. _____

DIGITAL .I.C.

DUAL SENSOR 1- A COLLECTOR ①

CIRCUIT SYMBOL	PART NUMBER	MANUFACTURER	TEMP & APPLIED RATED	SUPPLY VOLTAGE APPLIED RATED	INPUT VOLTAGE APPLIED RATED	OUTPUT CURRENT				RELIABILITY COMMENTS
						O STATE	APPLIED RATED	I STATE		
22E- PIN 2	SM54L20	T. I	+65	5.0	5.0	180	11A	10	11A	
			+125	8.0	5.5	1800	"	100	"	
23F. PIN 5,8	SM54L00	"	+65	5.0	5.0	206	"	14	"	
			+125	8.0	5.5	1800	"	100	"	
23F. PIN 3,14	SM54L00	"	+65	5.0	5.0	360	"	20	"	
			+125	8.0	5.5	1800	"	100	"	
24F. PINS 5,8	SM54L00	"	+65	5.0	5.0	206	"	14	"	
			+125	8.0	5.5	1800	"	100	"	
24F. PIN 3,14	SM54L00	"	+65	5.0	5.0	360	"	20	"	
			+125	8.0	5.5	1800	"	100	"	
21F. PIN 12	SM54L30	"	+65	5.0	5.0	180	"	10	"	
			+125	8.0	5.5	1800	"	100	"	
25F, PINS 3,6,8,11	T28901-5	AMELCO	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
26F	T28901-9	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
27F	T28901-9	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
28F	T28901-9	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
29F	T28901-9	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
'B' COLLECTOR STRESS DATA SAME AS 'A' COLLECTOR STRESS DATA SHOWN ABOVE										

RATING AND STRESS DATA

MODEL NO. _____

DIGITAL, I.C.

DUAL SENSOR 1 - T O F C

CIRCUIT SYMBOL	PART NUMBER	MANUFACTURER	TEMP. APPLIED RATED	SUPPLY VOLTAGE APPLIED RATED	INPUT VOLTAGE APPLIED RATED	OUTPUT CURRENT APPLIED RATED				RELIABILITY COMMENTS
						O STATE	I STATE	I STATE	I STATE	
Z14F-PIN5	SMS4L00	T. I	+65	5.0	5.0	180	21A	10	21A	
			+125	8.0	5.5	1800	"	100	"	
Z14F-PIN3	SMS4L00	"	+65	5.0	5.0	360	"	20	"	
			+125	8.0	5.5	1800	"	100	"	
Z14F-PIN8	SMS4L00	"	+65	5.0	5.0	360	"	20	"	
			+125	8.0	5.5	1800	"	100	"	
Z13F	SMS4L72	"	+65	5.0	5.0	360	"	20	"	
			+125	8.0	5.5	1800	"	100	"	
Z12F	SMS4L73	"	+65	5.0	5.0	360	"	20	"	
			+125	8.0	5.5	1800	"	100	"	
Z7J	T28901-5	AMELCO	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
Z11E-PIN1	T28901-7	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
Z10E-PIN1	T28901-5	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
3, 6, 8, 11										
Z11E-PIN8	T28901-7	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
Z11F-PIN8	T28901-5	"	+65	5.0	5.0	26	"	4	"	
			+125	6.8	6.8	260	"	60	"	
Z10G thru Z15G	T28901-9	"	+65	5.0	5.0	156	"	20	"	
			+125	6.8	6.8	260	"	60	"	
Z10F-PIN3, 6, 8, 11	T28901-5	"	+65	5.0	5.0	78	"	8	"	
			+125	6.8	6.8	260	"	60	"	
Z11F-PIN3, 6										
Z10G thru Z15G	T28901-9	"	+65	5.0	5.0	156	"	8	"	
			+125	6.8	6.8	260	"	60	"	
SEE DATA FOR TDF-DUAL SENSOR 2 SAME AS DATA FOR TDF DUAL SENSOR 1 SHOWN A										

STRESS DATA FOR T O F - DUAL SENSOR 2 SAME AS STRESS DATA FOR T O F DUAL SENSOR 1 SHOWN AS

ATING AND STRESS DATA

SPEC. NO. 10121009

DIGITAL .I.C.

DUAL SENSOR 1

MODEL NO.

MICR. AND DATA TRANSFER CONTROL LOGIC ①

CIRCUIT SYMBOL	PART NUMBER	MANUFACTURER	TEMP ² APPLIED RATED	SUPPLY VOLTAGE APPLIED RATED	INPUT VOLTAGE APPLIED RATED	OUTPUT CURRENT APPLIED RATED	'0' STATE	'1' STATE	RELIABILITY COMMENTS
ETH-PIN10	SM54L04	T.I	+65 -125	5.0 8.0	5.0 5.5	360 1800	11A 100	2.0 11	11A 11
E16A-PIN12	SM54L73	"	+65 -125	5.0 8.0	5.0 5.5	360 1800	" 100	2.0 11	" 11
E16C	SM54L73	"	+65 -125	5.0 8.0	5.0 5.5	360 1800	" 100	2.0 11	" 11
E16D	T2890-5	AMELCO	+65 -125	5.0 6.8	5.0 6.8	180 260	" 60	1.0 11	" 11
E14A-PIN5	SM54L04	T.I	+65 -125	5.0 8.0	5.0 5.5	180 1800	" 100	1.0 11	" 11
8, 10, 12 }									
15A	SM54L04	"	+65 -125	5.0 8.0	5.0 5.5	18 1800	" 100	1.0 11	" 11
E14B-PIN8	SM54L00	"	+65 -125	5.0 8.0	5.0 5.5	720 1800	" 100	4.0 11	" 11
E16A-PIN9	SM54L73	"	+65 -125	5.0 8.0	5.0 5.5	360 1800	" 100	2.0 11	" 11
E14B-PIN14	SM54L00	"	+65 -125	5.0 8.0	5.0 5.5	540 1800	" 100	3.0 11	" 11
E14K-PIN1	T2890-7	AMELCO	+65 -125	5.0 6.8	5.0 6.8	180 260	" 60	1.0 11	" 11
E14A-PIN2	SM54L04	T.I	+65 -125	5.0 8.0	5.0 5.5	180 1800	" 100	1.0 11	" 11
E14A-PIN14	SM54L04	"	+65 -125	5.0 8.0	5.0 5.5	540 1800	" 100	3.0 11	" 11
E13B-PIN10	SM54L72	"	+65 -125	5.0 8.0	5.0 5.5	360 1800	" 100	2.0 11	" 11
E14B-PIN3	SM54L00	"	+65 -125	5.0 8.0	5.0 5.5	180 1800	" 100	1.0 11	" 11
E14C-PIN2	SM54L00	"	+65 -125	5.0 8.0	5.0 5.5	180 1800	" 100	1.0 11	" 11

ATING AND STRESS DATA

DIGITAL .I.C.

DUAL SENSOR 1

MODEL NO. _____

MICR. AND DATA TRANSFER CONTROL LOGIC (2)

CIRCUIT SYMBOL	PART NUMBER	MANUFACTURER	TEMP. APPLIED RATED	SUPPLY VOLTAGE APPLIED RATED	INPUT VOLTAGE APPLIED RATED	OUTPUT CURRENT 'O' STATE APPLIED RATED	'I' STATE	RELIABILITY COMMENTS
E13C-PIN12	SM54L73	T.I	+65 125	5.0 8.0	5.0 5.5	52 μ A 1800 "	8 μ A 100 "	
E11F-PIN11	T28901-5	AMELCO	+65 125	5.0 6.8	5.0 6.8	180 260 "	10 60 "	
E14C-PIN6	SM54L04	T.I	+65 125	5.0 8.0	5.0 5.5	360 1800 "	20 100 "	
E13C-PIN9	SM54L73	"	+65 125	5.0 8.0	5.0 5.5	26 1800 "	4 100 "	
E15B-PIN1	T28901-7	AMELCO	+65 125	5.0 6.8	5.0 6.8	26 260 "	4 60 "	
E17D-PIN11	T28901-5	"	+65 125	5.0 6.8	5.0 6.8	26 260 "	4 60 "	
E8J-PIN1	T28901-7	"	+65 125	5.0 6.8	5.0 6.8	26 260 "	4 60 "	
E7J-PIN11	T28901-5	"	+65 125	5.0 6.8	5.0 6.8	26 260 "	4 60 "	
E16B-PIN6	T28901-9	"	+65 125	5.0 6.8	5.0 6.8	26 260 "	4 60 "	
E17B-PIN6	T28901-9	"	+65 125	5.0 6.8	5.0 6.8	26 260 "	4 60 "	
E2K-PIN3	T28901-7	"	+65 125	5.0 6.8	5.0 6.8	26 260 "	4 60 "	
E15B-PIN1	T28901-7	"	+65 125	5.0 6.8	5.0 6.8	180 260 "	10 60 "	
E15C-PIN5								
E14C-PIN8	SM54L04	T.I	+65 125	5.0 8.0	5.0 5.5	180 1800 "	10 100 "	
E14B-PIN5	SM54L00	"	+65 125	5.0 8.0	5.0 5.5	720 1800 "	40 100 "	
E10-PIN10,12	SM54L04	"	+65 125	5.0 8.0	5.0 5.5	720 1800 "	40 100 "	



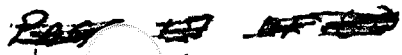
SPEC. NO. 10121009

MODEL NO. _____

DIGITAL, I.C.

DUAL SENSOR 1
MICR. AND DATA TRANSFER CONTROL LOGIC (4)

[illegible]



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SPEC. NO. 10121009

MODEL NO. _____

DIGITAL, I.C.

SINGLE SENSOR LOGIC (2)

[illegible]



ERO corporation
Terra California 90503

ATM 1014
CONTRACT

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ATING AND STRESS DATA

SPEC. NO. 1021009

MODEL NO.

DIGITAL, I.C.

SINGLE SENSOR LOGIC ①

CIRCUIT SYMBOL	PART NUMBER	MANUFACTURER	TEMP & APPLIED RATED	SUPPLY VOLTAGE APPLIED RATED	INPUT VOLTAGE APPLIED RATED	OUTPUT CURRENT O STATE APPLIED RATED	I STATE	RELIABILITY COMMENTS
1J-PINS 3,14	SM54L00	T.I	+65 +125	5.0 8.0	5.0 5.5	206 21H 1800 "	14 14H 100 "	
1K-PINS 3,14								
1J-PINS 5,8	SM54L00	"	+65 +125	5.0 8.0	5.0 5.5	360 1800 "	20 100 "	
1K-PINS 5,8								
1G-PIN 5	SM54L00	"	+65 +125	5.0 8.0	5.0 5.5	180 1800 "	10 100 "	
1H-PIN 10	SM54L00	"	+65 +125	5.0 8.0	5.0 5.5	206 1800 "	14 100 "	
1H-PIN 2	SM54L00	"	+65 +125	5.0 8.0	5.0 5.5	180 1800 "	10 100 "	
2F-PINS 5,8	SM54L00	"	+65 +125	5.0 8.0	5.0 5.5	— 1800 "	— 100 "	
2G-PIN 2	SM54L20	"	+65 +125	5.0 8.0	5.0 5.5	180 1800 "	10 100 "	
3G-PIN 12	SM54L04	"	+65 +125	5.0 8.0	5.0 5.5	360 1800 "	20 100 "	
3K, 33H, 34H	T28901-9	AMELCO	+65 +125	5.0 6.8	5.0 6.8	130 260 "	16 60 "	
3J-PIN 1	T28901-7	"	+65 +125	5.0 6.8	5.0 6.8	26 260 "	4 60 "	
2K-PIN 6	T28901-5	"	+65 +125	5.0 6.8	5.0 6.8	52 260 "	8 60 "	
2K-PIN 11	T28901-5	"	+65 +125	5.0 6.8	5.0 6.8	26 260 "	4 60 "	
1K-PIN 8	T28901-7	"	+65 +125	5.0 6.8	5.0 6.8	26 260 "	4 60 "	

AGING AND STRESS DATA

SPEC. NO. SEE COMMENT

MODEL NO. _____

DIGITAL, I.C.

SENSOR ELECTRONICS

CIRCUIT SYMBOL	PART NUMBER	MANUFACTURER	TEMP ^o APPLIED RATED	SUPPLY VOLTAGE APPLIED RATED	INPUT VOLTAGE APPLIED RATED	OUTPUT CURRENT		RELIABILITY COMMENTS
						0 STATE	1 STATE	
Z15-PIN12	SM54L73	T.I.	+65	5.0	5.0	360 μ A	40 μ A	OUT BOARD 10/26011
			+125	8.0	5.5	1800 μ A	100 μ A	
Z15-PIN9	"	"	+65	5.0	5.0	720 "	40 "	
			+125	8.0	5.5	1800 μ A	100 μ A	
Z13-PIN8	SM54L04	"	+65	5.0	5.0	720 "	40 "	
			+125	8.0	5.5	1800 "	100 "	
Z13-PIN2	"	"	+65	5.0	5.0	180 "	10 "	
			+125	8.0	5.5	1800 "	100 "	
Z13-PIN6	"	"	+65	5.0	5.0	720 "	40 "	
			+125	8.0	5.5	1800 "	100 "	
Z14-PIN3,14	SM54L00	T.I.	+65	5.0	5.0			10/26011
			+125	8.0	5.5	1800 "	100 "	
Z1	T28701-S	AMELCO	+65	5.0	5.0	180 μ A	10 μ A	10/26015
			+125	6.8	6.8	260 "	160 "	
Z2	SM54L04	T.I.	+65	5.0	5.0			
			+125	8.0	5.5	1800 "	100 "	
Z3	SM54L04	T.I.	+65	5.0	5.0	360 μ A	40 μ A	OUT BOARD 10/26017
			+125	8.0	5.5	1800 "	100 μ A	
Z14	SM54L00	"	+65	5.0	5.0	180 "	10 "	"
			+125	8.0	5.5	1800 μ A	100 μ A	
Z1	SM54L00	T.I.	+65	5.0	5.0	180 "	10 μ A	10/26010
			+125	8.0	5.5	1800 μ A	180 μ A	



TEXAS
INSTRUMENTS

COMPONENT
NO. 20803

RATING AND STRESS DATA
CAPACITORS

2.5 11.1
CIRCUIT SLIP-1

ATM 1
CONTRACT

SPEC NO. 10.21007

MODEL NO.

RATING AND STRESS DATA CAPACITORS					RATED VALUES										APPLIED VALUES								SPEC NO. 10-21007	
CIRCUIT SYMBOL	PART NO.	MFR.	MFR OR MIL TYPE	DIELECTRIC	N	CAPACITANCE	CAPACITANCE TOLERANCE (%)	WVDC AT 85°C (VOLTS)	WVDC AT 125°C (VOLTS)	VWMS OR VRIIPPLE	VDC (VOLTS)	VWMS OR VRIIPPLE (VOLTS)	TOTAL VOLTAGE (VOLTS)	FREQUENCY (HZ)	DUTY CYCLE (%)	STRESS RATIO V _{TOT} /V _{RTD}	FAILURE RATE IN HTS (Q-9)	RELIABILITY RECOMMENDATIONS	REV					
																				MODEL NO.				
C1-SL	39003/01-2848	KEMET		Ta ₂ O ₅	F	4.7 _μ	±10	50	33		26.3	-	26.3	φ	100	.53								
C12-13	39003/01-2848			Ta ₂ O ₅	F	18 _μ	±10	50	33		25	-	25	φ	100	.50		NOT CURRENT LIMITED						
C1-PR	39003/01-2848	"		"	F	18 _μ	±10	50	33									DELETED						
C2-PA	39014/02-0310	ACROVON		CERAMIC		0.1 _μ	±10	100	67	-	8	.14	8.14	5K	100	.16								
C12	39003/01-2848	KEMET		Ta ₂ O ₅		18 _μ	±10	50	33	(3.8)	24		24	5K	100	.98		NOT CURRENT LIMITED						
C3	39003/01-(1)	"		"		6.8 _μ	±10	35	20	1.0	12.4	0.1	12.5	5K	100	.62								
C4	39014/02-(1)	ACROVON		CERAMIC		0.1 _μ	±10	100	67	0.8	48	0.2	48.2	5K	100	.48								
C5																								
C6	39003/01-(1)	KEMET		Ta ₂ O ₅		4.7 _μ	±10	10	7	0.7	5.05	.01	5.15	5K	100	.51								
C7	39003/01-(1)	"		"		4.7 _μ	±10	10	7	0.7	5.05	.003	5	5K	100	.50								
C8	39003/01-(1)	"		"		120 _μ	±10	10	7	0.2	5.05	.005	5	5K	100	.50								
C9	39003/01-	"		"		12.5 _μ	±10	10	7	0.2	5.05	.001	5	5K	100	.50								
C10	39003/01-(1)	"		"		3.3 _μ	±10	15	10	0.7	7.5	.05	7.5	5K	100	.50								
C11	39003/01-(1)	"		"		22 _μ	±10	15	10	0.3	7.5	.01	7.5	5K	100	.50								
C6-C5	F331A7013050	KEMET		PARYLENE		100V 10 _μ F	±5	50	35	-	3.65	-	-	5K	100	.07								
C2-05	39014/05-C314	ACROVON		CERAMIC		100 PFD	±10	100	50		1	-	-	-	100	.01								
C1-FFD	39014/02-0310	"		"		0.1 _μ 48	±10	100	50		5	<1	-	-	-	.01								

P-PULSE, AC-ALTERNATING F-FILTER, DC-DIRECT CURRENT

Z form 6-97 5 (4-70)

RATING AND STRESS DATA

ZÄHNER DIODES

LEAN
POWER SUPPLY

[illegible]

LEHM
POWER SUPPLY

ATM 1014
CONTRACTOR _____
SPEC NO. 10121001
MODEL NO. _____

TIME-ZERO Corporation
Torrance, California 90509
RATING AND STRESS DATA
RESISTORS

CIRCUIT SYMBOL	PART NO.	MFR.	MFR'S PART NO.	MIL TYPE	RATED VALUES					APPLIED VALUES							RELIABILITY COMMENTS	REV
					RESISTANCE (OHMS)	RESISTANCE TOLERANCE (%)	POWER (WATT) AND VOLTAGE (V)	MAX TEMP FOR MAX POWER (°C)	TEMP FOR ZERO POWER (°C)	IG (MA)	VDC (VOLTS)	VAC (VOLTS)	DUTY CYCLE %	POWER (MW)	STRESS RATIO	FAILURE RATE IN HTS (10 ⁻⁶)		
R1-SL	RNC5H6100FR	MEPCO		MIL-R-55123	619	1	100-200V	125	175	2.2	1.5		100	36	.03			
R2-SL	RNC55H1001FR	"		"	2.54K	1	100-200V	125	175	2.2	19		100	42	.33			
R3-SL	RNC55H303JS	A.B.		MIL-R-55123	30K	5	125-150V	70	130	-	1	-	100	NIL	-			
R4-SL	RNC55H102JS	"		"	1K	5	125-150V	70	130	-	1	-	100	1.0	.01			
R5-SL	RNC55H1001FR	MEPCO		MIL-R-55123	2.54K	1	100-200V	125	175		27		85	70	.36			
R1-PR	RNC55H2431FR	"		"	2.43K					0	0	0	0	0	0		USE 40K F. CATH. IN THERMION	
R3	1712				171K					.54	-	-	100	15	.12			
R4	3312				33.2K					.87	-	-	100	22	.17			
R9	1182				118K					.97	-	-	85	.02	-			
R10	4122				41.2K					.54	-	-	100	12	.1			
R11	1503				150K					-	7.1	-	100	.33	-			
R12	6312				63.1K					-	.2	-	100	NIL	-			
R13	1653				165K					-	.1	-	100	-	-			
R14	RNC55H1001FR	MEPCO		MIL-R-55123	2.54K	1	100-200V	125	175	-	.1	-	100	-	-			
R2	RCA 25G303JS	A.B.		MIL-R-55123	30K	5	125-150V	70	130	-	1	-	100	.03	NIL			
R5					30K	5		70	130	-	1	-	85	NIL	-			
R6					30K	5		70	130	-	1	-	85	NIL	-			
R1-PR	RCA 25G303JS	"			30K	5	125-150V	70	130	-	1	-	85	28	.22			
R3	RNC55H-SELECT			MIL-R-55123	41K-100K	1	100-200V	125	175		7.1	-	100	12.5	.1		USE 40K F. CATH. IN THERMION	
R1	RNC55H-SELECT			"	4K-4K	1	100-200V	125	175		9.1	-	NIL	40	.36		USE 40K F. CATH. IN THERMION	

72 4-10 4-10 81A-7A

RATING AND STRESS DATA
TRANSISTORS

PO SUPPLY

ATM 1016
CONTRACTOR
SPEC NO. 1001
MODEL NO.

CIRCUIT SYMBOL	PART NO.	MFG.	TYPE	V _{CE} NORMAL OFF VOLTAGE	V _{CE} VOLTS (PEAK)	V _{EB} (VOLTS)	I _C MILLIAMPS PEAK	I _C MILLIAMPS AVERAGE	DUTY CYCLE	P _{TOTAL} (AVERAGE) WATTS	P _{PEAK} (WATTS)	FAILURE RATE IN HRS (10 ⁻⁶)	RELIABILITY COMMENTS	P E
				APPLIED	APPLIED	APPLIED	APPLIED	APPLIED	T _{ON} T _{OFF}	APPLIED	APPLIED			
Q1-SL	2N2102	RAY	NPN	120	120	7	40	10	100	40mW	25mW			
Q2-SL	52N4150	SOL	NPN	100	100	5	10A	10	100	160mW	212(30mW)			
Q1-FR	2N2907A	T.I.	PNP	60	60	5	600	100	100	0.31	23(30mW)			
Q2-PR	2N2907A	"	PNP	60	60	5	600	100	100	0.463	23(30mW)			
Q3-PR	2N2907A	"	PNP	60	60	5	600	100	100	0.463	23(30mW)			
Q4-PR	2N2907A	"	PNP	60	60	5	600	100	100	0.463	23(30mW)			
Q1-Q2	52N4150	SOLITRON	NPN, POWER	100	100	5	10A	10	100	160mW	212(30mW)			
Q1A OS	2N2907A	T.I.	DUAL NPN	60	60	5	600	100	100	0.31	23(30mW)			
Q1B OS	2N2907A	"	"	60	60	5	600	100	100	0.31	23(30mW)			
Q2	2N2907A	"	PNP	60	60	5	600	100	100	0.31	23(30mW)			
Q3	2N2222A	"	NPN	75	75	6	600	100	100	0.31	23(30mW)			
Q4 OS	2N2222A	"	"	75	75	6	600	100	100	0.31	23(30mW)			
Q1-FFD	2N2907A	T.I.	NPN	60	60	5	600	100	100	0.31	23(30mW)			
Q2	2N2907A	"	"	60	60	5	600	100	100	0.31	23(30mW)			
Q3	2N2222A	"	NPN	75	75	6	600	100	100	0.31	23(30mW)			
Q4-FFD	2N2907A	"	PNP	60	60	5	600	100	100	0.31	23(30mW)			

CONTRACT

SPEC NO. 10121001

MODEL NO.

POWER SUPPLY

TIME-ZERO CORPORATION
Torrance, California 90503RATING AND STRESS DATA
DIODES

CIRCUIT SYMBOL	PART NO.	MFG.	MFG OR MIL. TYPE	V _R	I _R	I _{PEAK}	I _{AVERAGE} (FORWARD)	DUTY CYCLE	P _{TOTAL} (AVERAGE)	P _{PEAK}	FAILURE RATE IN BITS (10 ⁻⁶)	RELIABILITY RECOMMENDATIONS	> 10 ⁶ HRS
				APPLIED RATED	APPLIED RATED	APPLIED RATED	APPLIED RATED	T _{ON} T _{OFF}	APPLIED RATED	APPLIED RATED			
CR1-SL	1N4935	T. I.	TE10128601	21	2.01	-	-	0	-	-			
				200	1.1A	1A	100-mA	100					
CR1-CR2	51N5417	GENTEX		15	2.01A	2A	8	0	0	0			
				200	1.1A	2.5A	3.0A	100					
CR4-SR	1N4938	T. I.		1	2.01	10mA	2	0	0	0			
				200	1.1A	50mA	100mA	100	400mW	5W			
CR5-SR	1N4938	.		2	2.01	21mA	1A						
				200	1.1A	1A							
CR7-SR	1N4938	.		7	2.01	0	0	0	0	0			
				200	1.1A	1A	10.7A	100	400mW	5W			
CR8-SR	1N4938			-	-	0.5mA	0.5mA	100	0.5mW	5W			
				200	1A	1A	10.7A	100	400mW	5W			
CR1	51N5417	COMMUTATING DIODE		2.5	0.1	150mA	50mA	40	5mW	3.2W			
				200	0.1A	2.5A	3A	60	6W	730W			
CR2-3		12V FOR PRE-REG.		25	0.1	3.7mA	1.85mA	50	2mW	270mW			
				200	0.1A	2.5A	3A	50	6W	730W			
CR4-5		47V FOR S.L.		47	0.1	3.2mA	1.6mA	50	1.6mW	270mW			
				200	0.1A	2.5A	3A	50	6W	730W			
CR6-7	51N5417	+5V SUPPLY		10.1	0.1A	2A	1.5A	50	1.5W	3W			
				200	0.1A	2.5A	3A	60	6W	730W			
CR8-9	.	-5V SUPPLY		18.1	0.1A	2A	1.5A	50	1.5W	3W			
				200	0.1A	2.5A	3A	60	6W	730W			
CR10-11	1N4938	-7.5V SUPPLY		16	0.1A	2A	1.5A	50	1.5W	3W			
				200	0.1A	1A	100mA	50	200mW	5W			
CR12													
CR13													
CR14													
CR15													
CR16													
CR17													
CR18													
CR19													
CR20													
CR21													
CR22													
CR23													
CR24													
CR25													
CR26													
CR27													
CR28													
CR29													
CR30													
CR31													
CR32													
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CR96													
CR97													
CR98													
CR99													
CR100													

USED IN CIRCUIT LIMITING

RATING AND STRESS DATA INDUCTORS

LEAM
POWER SUPPLY

ATM 1014
CONTRACTOR _____
SPEC NO. 10121001
MODEL NO. _____

[illegible]

& THE HIGHEST VOLTAGE USUALLY OCCURS AT THE INSTANT THE TOTAL VOLTAGE IS APPLIED TO THE CIRCUIT.

NE=4A_C B_{NS} X 10⁻⁸ (V) FOR RU,E=4.44A_C B_{NS} X 10⁻⁸ (V) FOR V- FOR AC ONLY.

TZ form 6-97 D (4-70)

ATING AND STRESS TRANSFORMER

LEARN
POWER SUPPLY

[illegible]

AT FREQUENCY OF OPERATION FOR DRIVE WINDING ONLY

$$E = 4A_C F_{B_M} NS \times 10^{-8} \text{ (V) FOR } \Pi, E = 4.44A_C F_{B_M} NS \times 10^{-8} \text{ (V) FOR } \textit{N} - \text{FOR DRIVE WINDINGS ONLY}$$

TOTAL POWER LOSS = CORE LOSS + $\sum_{n=1}^n R_n \times I_{rms}^2$, WHERE I_{rms} IS DETERMINED FOR EACH WINDING
FORM 6-97 H (4-70)

ATM 1014

CONTRACTOR

SPEC NO. SEE COMMENTS

MODEL NO.

TIME-ZERO Corporation
Torrance, California 90503RATING AND STRESS DATA
RESISTORS

CIRCUIT SYMBOL	PART NO.	MFR.	MFR'S PART NO.	MIL TYPE	RATED VALUES					APPLIED VALUES							RELIABILITY COMMENTS	REV
					RESISTANCE (OHMS)	RESISTANCE TOLERANCE (%)	POWER (W) AND VOLTAGE (V)	MAX TEMP FOR MAX POWER (°C)	TEMP FOR ZERO POWER (°C)	DC (MA)	VDC (VOLTS)	V RMS (VOLTS)	DUTY CYCLE %	POWER (W)	STRESS RATIO	FAILURE RATE IN HTS (10 ⁻⁹)		
R1	RC056... JS	A.B.		M437-1/4	560	5	125 250V	70	130	-	2.2	-	100	10	.08		10126016	
R2					270K					-	3.69	-	100	.035	.00			
R3					160K					11mA		-	100	.02	.00			
R6					6.2K						.00		250	.00	.00			
R8					56K						.7	-	250	.007	.00			
R10					10K						.00	-		.00	.00			
R11					10K						.00	-		.00	.00			
R14					10K						.00	-		.00	.00			
R20	RCR056... JS	A.B.		M437-1/4	1K	5	125 250V	70	130		1.007		250	.03	.00			
R4	RWR518... FR	MEPCO		M437-1/4	20K	1	1000 4.5V	25	275		.00			.00	.00			
R17	RWSSH... FR	MEPCO		M437-1/4	3.15K	1	100 250V	125	175		5		250	1.2	.072			
R18					2.47K						.13		25	.006	.10			
R25					1K					15mA			250	.03	.00			
R7					7.09K					10mA	-			.00	.00			
R9					6.65K						4		250	0.4	.021			
R12					14.7K						2		250	.27	.023			
R13					3.57K						.5		250	.07	.007			
R14					3.65K						2.5		250	1.7	.017			
R15					1.72K						3.5		250	0.4	.034			
R21					19.7K						4.1		250	1.0	.061			
R22		MEPCO		M437-1/4	3.74K						.9		250	.22	.002		10126016	

TZ 60-14-70 E (14-70)

RATING AND STRESS DATA
RESISTORS

ATM 1014

CONTRACTOR

SPEC NO. See Comments

MODEL NO. _____

CIRCUIT SYMBOL	PART NO.	MFR.	MFR'S PART NO.	MIL TYPE	RATED VALUES					APPLIED VALUES							RELIABILITY COMMENTS	REV
					RESISTANCE (OHMS)	RESISTANCE TOLERANCE (%)	POWER (MW) AND VOLTAGE DC	MAX TEMP FOR MAX POWER (°C)	TEMP FOR ZERO POWER (°C)	IDC (mA)	VDC (VOLTS)	V RMS (VOLTS)	DUTY CYCLE	POWER (MW)	STRESS RATIO	FAILURE RATE IN HTS (10 ⁻⁶)		
R1	FCR05G--- JS	A.B		MIL-R-37-14	220K	±5	125 250V	70	130					0.0	0.0		10/12 6018	
R3		A.B			220K									0.0	0.0			
R5		A.B			20.2									0.0	0.0			
R12	FCR05G--- JS	A.B		"	1K	±5	125 250V	70	130		3			9	0.72			
R4	RNC55H--- FR	MEMO		MIL-R-37-12	2K	±1	100 200V	125	175		0.2			0.02	0.002			
R6					402K						0.4			0.04	0.004			
R7					2.15K						0.6			0.18	0.018			
R9					40.2K						0.6			0.09	0.009			
R9					2.15K						0.3			0.05	0.005			
R10					11K						3			0.12	0.012			
R11	RNC55H--- FR				2K	±1	100 200V	125	175		0.3			0.03	0.003		10/12 6018	
		MEMO		MIL-R-37-12														
R1, R3	FCR05G--- JS	A.B		MIL-R-37-14	220K	±5	125 150V	70	120					0.0	0.0		10/12 6009	
R5		A.B			20.2									0.0	0.0			
R14	FCR05G--- JS	A.B		"	1K	±5	125 250V	70	120		3			9	0.72			
R4	RNC55H--- FR	MEMO		MIL-R-37-12	2K	±1	100 200V	125	175		0.2			0.02	0.002			
R6					402K						0.4			0.04	0.004			
R7					2.10K						0.6			0.17	0.017			
R9, R10					20.1K						0.3			0.05	0.005			
R11	RNC55H--- FR	MEMO		MIL-R-37-12	2.74K	±1	100 200V	125	175					0.02	0.002		10/12 6009	

ATM 1014

CONTRACTOR

SPEC NO. SEE COMMENTS

MODEL NO. _____



**RATING AND STRESS DATA
RESISTORS**

RATING AND STRESS DATA RESISTORS					RATED VALUES					APPLIED VALUES							SPEC NO. <u>SEE COMMENT</u>	MODEL NO. _____	
CIRCUIT SYMBOL	PART NO.	MFR.	MFR'S PART NO.	MIL TYPE	RESISTANCE (OHMS)	RESISTANCE TOLERANCE (%)	POWER (W) AND VOLTAGE DC	MAX TEMP FOR MAX POWER (°C)	TEMP FOR ZERO POWER (°C)	I _{DC} (mA)	V _{DC} (VOLTS)	V _{RMS} (VOLTS)	DUTY CYCLE	POWER (mW)	STRESS RATIO	FAILURE RATE IN BITS (10 ⁻⁹)	RELIABILITY COMMENTS	REV	
R12	PH155H-FC	MEPCO		MIL-R-55112	11.0K	±1	100 200V	125	175		3				.82	1.182		1012 F137	
R13	"	"		"	1.74K	"	"	"	"		-				.21	.20		"	
R1	ACR05G-FC	A-B		MIL-R-55111	3.0K	±5	125 250V	70	130		.20		100	.20	.20		Part 3.3 THRESHOLD SET 10126610		
R2					22K						5		100	1.14	.091				
R4					6.2K						.8		100	.1	.20				
R6					1K						1.6		100	2.56	.214				
R7					3K						4		100	5.3	.042				
R8					820K						8		100	.05	.20				
R10	ACR05G-FC	A-B		MIL-R-55111	2.0K	±5	125 250	70	130		10		100	5	.14				
R3	PH155H-FC	MEPCO		MIL-R-55112	17.7K	±1	100 200V	125	175		.20		100	.20	.20				
R5	"				10K	"	"	"	"		1.5		100	.225	.002				
R9	"				100K	"	"	"	"		.8		100	.0041	.20		1026610		
R1	PH155H-FC				2.10K	±1	100 200V	125	175		.6	-	100	.17	.002		1012 R111		
R2					2.10K						.6	-	100	.17	.002				
R3					2.10K						.6	-	100	.17	.002				
R4					2.10K						.6	-	100	.17	.002				
R5	PH155H-FC	MEPCO		MIL-R-55112	8.2K	±1	100 200V	125	175		5		100	.36	.003		1021111		

ATM 1014

CONTRACTOR

SPEC NO. SEE COMMENTS

MODEL NO. _____



RATING AND STRESS DATA RESISTORS

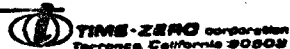
CIRCUIT SYMBOL	PART NO.	MFR.	MFR'S PART NO.	MIL TYPE	RATED VALUES					APPLIED VALUES							RELIABILITY COMMENTS	REV
					RESISTANCE (OHMS)	RESISTANCE TOLERANCE (%)	POWER (W) AND VOLTAGE DC	MAX TEMP FOR MAX POWER (°C)	TEMP FOR ZERO POWER (°C)	I _{DC} (MA)	V _{DC} (VOLTS)	V _{RMS} (VOLTS)	DUTY CYCLE	POWER (W)	STRESS RATIO	FAILURE RATE IN HTS (10 ⁻⁶)		
R6	PCSSH....FR	MEMO		MIL-R-5512	2K	±1	100 250	125	175	-	.14	-	100	.009	~0		10K 6011	
R7					6.95K					-	2.	-	100	.57	.06			
R1					24.7K						5	-	100	1	.001			
R11	PCSSH....FR	MEMO		MIL-R-5512	4722	±1	100 250	125	175		.1	-	100	.2	.002			
R8	RCOSG....JS	A.B		MIL-R-5512/4	222K	±5	100 250	70	130		2	-	100	.62	~0			
R10					1K						2	-	100	4	.032			
R12					3.6K						2.1	-	100	1.2	.009			
R13					10K						6	-	100	3.6	.03			
R14	RCOSG....JS				2K	±5	100 250	70	130		.4	-	100	.08	~0		10126011	
R1	RCOSG....JS				51K	±5	100 250	70	130		~0	-	100	~0	~0		10126002	
R2					477K						4.4	-	100	.073	~0			
R3					4.75K						2.8	-	100	2.1	.024			
R4					47K						4.4	-	100	.073	~0			
R5					1K						5	-	100	2.5	.02			
R6					4.7K						.4	-	100	.024	~0			
R7					10K						.82	-	100	.07	~0			
R8					51K						~0	-	100	~0	~0			
R10					37K						12	-	100	3.7	.027			
R11	RCOSG....JS	A.B		MIL-R-5512/4	11K	±5	100 250	70	130		4.4	-	100	.18	.014		10126003	

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ATM 1014

CONTRACTOR _____

SPEC NO. SEE SPECIFICATION

MODEL NO. _____

RATING AND STRESS DATA
RESISTORS

CIRCUIT SYMBOL	PART NO.	MFR.	MFR'S PART NO.	MIL. TYPE	RATED VALUES					APPLIED VALUES							RELIABILITY COMMENTS	REV
					RESISTANCE (OHMS)	RESISTANCE TOLERANCE (%)	POWER (WATT) AND VOLTAGE DC	MAX TEMP FOR MAX POWER (°C)	TEMP FOR ZERO POWER (°C)	IDC (MA)	VDC (VOLTS)	V RMS (VOLTS)	DUTY CYCLE %	POWER (MW)	STRESS RATIO	FAILURE RATE IN 10 ⁶ HRS (10 ⁻⁹)		
R2	R4056-... JS	A.B.		MIL-R-27001A1	200K	±5	125 250V	70	130		~0		100	~0	~0		1012 6003	
R13	"	"		"	200K	"	"	"	"		.6		100	.03	~0		"	
R9	R4056-... JS	MEPCO		MIL-R-27001A1	133K	±1	100 205V	125	175		~0		100	~0	~0		"	
R1	R4056-... JS	A.B.		MIL-R-27001A1	100K	±5	125 250V	70	130		5			.25	.00~		1012 6015	
R2					50K						1			.73	.006			
R3					100K						.6			.003	~0			
R4					10K						5			.25	.02			
R5					10K						5			.25	.02			
R6					50K						5			.45	.03			
R7					100K						5			.25	.002			
R8					50K						5			.45	.03			
R9					50K						5			.45	.03			
R10					22K						4			.73	.02			
R11					100K						.6			.003	~0			
R12					100K						5			.25	.012			
R13					50K						5			.45	.03			
R14					50K						.4			.73	.02			
R15					100K						.6			.003	~0			
R16	R4056-... JS	A.B.		MIL-R-27001A1	10K	±5	125 250V	70	130		5			.25	.02		1012 6015	

ATM 1014

CONTRACTOR _____

SPEC NO. SEE COMMENTS

MODEL NO. _____



LOADING AND STRESS DATA RESISTORS

CIRCUIT SYMBOL	PART NO.	MFR.	MFR'S PART NO.	MIL TYPE	RATED VALUES					APPLIED VALUES							RELIABILITY COMMENTS	REV
					RESISTANCE (OHMS)	RESISTANCE TOLERANCE (%)	POWER (W) AND VOLTAGE DC	MAX TEMP FOR MAX POWER (°C)	TEMP FOR ZERO POWER (°C)	IDC (mA)	VDC (VOLTS)	VWDC (VOLTS)	DUTY CYCLE %	POWER (MW)	STRESS RATIO	FAILURE RATE IN BITS (10 ⁻⁶)		
R17	RCR05G.... JS	A.B.		MIL-R-37001/4	10K	±5	125 250V	70	130		5			2.5	.02		1012 6015	
R18					56K						5			.45	.003			
R19					100K						5			.25	.002			
R20					56K						5			.45	.003			
R21	RCR05G.... JS	A.B.		MIL-R-37001/4	56K	±5	125 250V	70	130		5			.45	.003		1012 6015	
R1	RCR05G.... JS	A.B.		MIL-R-37001/4	1K	±5	125 250V	70	130		3.3	-	100	1.9	.015		1012 6017	
R2					1K						.5		100	.25	.002			
R3					1K						4		100	.16	.12			
R4					1K						3.5		250	12.25	.1			
R5					10K						.5		<50	.25	.0			
R6					15K						5.5		250	5.02	.016			
R7					33K						4		250	.485	.003			
R8					10K						.6		250	.006	.0			
R9					100K						12		100	1.44	.015			
R11					511K						5		<50	.047	.0			
R12					2K						N/C		<50	.0	.0			
R15, 16																	246762	
R17	RCR05G.... JS	A.B.		MIL-R-37001/4	8.2K	±5	125 250V	70	130		2.5		250	.76	.006			
R10	RCR05G.... JS	MEICO		MIL-R-37001/4	7.5K	±1	125 250V	125	175		5		250	.75	.022		1012 6017	

ATM 1014

CONTRACTOR _____

SPEC NO. SEE PL. 114-12

MODEL NO. _____


**RATING AND STRESS DATA
RESISTORS**

CIRCUIT SYMBOL	PART NO.	MFR.	MFR'S PART NO.	MIL TYPE	RATED VALUES						APPLIED VALUES						RELIABILITY COMMENTS	REV
					RESISTANCE (OHMS)	RESISTANCE TOLERANCE (%)	POWER (WATT) AND VOLTAGE (V)	MAX TEMP FOR MAX POWER (°C)	TEMP FOR ZERO POWER (°C)	DC (MA)	VDC (VOLTS)	V RMS (VOLTS)	DUTY CYCLE	POWER (MW)	STRESS RATIO	FAILURE RATE IN HTS (10 ⁻⁹)		
R12	ANIC55H-44-SE	MEXCO		MIL-55H2	20K1K	±1	100 200V	125	175		5		<50	1.25	.0125		1012 6017	
R11	"	"		"	10K1K	±1	100 200V	125	175		0.4		<50	ND	ND		"	
R1	PER15G-44-JS	A.B.		MIL-55H2-84	51K	25	125 250V	70	130		1	-	100	.02	ND		1012 6026	
R2					100K						5	-	100	.25	.002			
R3					4.7K						2.2	-	100	1.03	.008			
R4					10K						4.3		100	1.25	.014			
R5					100K						2.68		100	.072	ND			
R6					15K						1.5		100	2.1	.018			
R7					51K													
R8					75K						17		ND	5.4	.015			
R9	PER15G-44-JS	A.B.		MIL-55H2-84	511K	25	125 250V	70	130		12		ND	1.9	.015		1012 6026	
A FILM COLLECTOR CIRCUIT (10126014) HAS SAME STRESS DATA AS A FILM ID CIRCUIT (10126009) EXCEPT FOR FOLLOWING PARTS																		
R7	PER15G-44-JS	A.B.		MIL-55H2-84	1K	25	125 250V	70	130		3			9	.072		1012 6014	
R11	"	"		"	1.5K	"	"	"	"		-			ND	ND			
R3	ANIC55H-44-SE	MEXCO		MIL-55H2	10.2K	±1	100 200V	125	175		12			.003	ND			
R7					10.2K						12			.003	ND			
R10					10.2K						12			.003	ND			
R12	ANIC55H-44-SE	MEXCO		MIL-55H2	5.23K	±1	100 200V	125	175		3			.07	.017		1012 6014	



**RATING AND STRESS DATA
RESISTORS**

ATM 1014
CONTRACTOR _____
SPEC NO. See Contract
MODEL NO. _____

CIRCUIT SYMBOL	PART NO.	MFR.	MFR'S PART NO.	MIL TYPE	RATED VALUES					APPLIED VALUES							RELIABILITY COMMENTS	REV
					RESISTANCE (OHMS)	RESISTANCE TOLERANCE (%)	POWER (W) AND VOLTAGE DC	MAX TEMP FOR MAX. POWER (°C)	TEMP FOR ZERO POWER (°C)	IDC (mA)	VDC (VOLTS)	VWDC (VOLTS)	DUTY CYCLE	POWER (W)	STRESS RATIO	FAILURE RATE IN HTS (10 ⁻⁶)		
R1	RC65G...JS	A.B		14-A-3702-1	10K	±5	125 250W	70	130		3.3		100	1.7	.015		10126023	
R2					1K						.5		100	.25	.002			
R3					1K						4		100	16	.12			
R4					1K						3.5		100	10.25	.1			
R5					1K						.5		100	.025	.00			
R6					15K						5.5		100	2.42	.016			
R7					51K						5		100	.49	.004			
R9					2K						.0		-	.1	.00			
R11					30K						2		100	.13	.001			
R12					10K						5.5		100	3.025	.024			
R13	RC65G...JS	A.B		14-A-3702-1	2K	±5	125 250W	70	130		2.5		100	3.12	.025			
R5	RC65H...FR	MECO		14-A-3702-1	1K	±1	125 250W	125	175		5		100	1.05	.005			
R10	"	"		"	47.2	"	"	"	"		.1			.0	.00		10126023	
FILM COLLECTOR CIRCUIT, SENSOR #3(10126015) HAS SAME STRESS DATA AS THE FILM ID CIRCUIT, SENSOR #3(10126015) EXCEPT FOR RELIABILITY DATA.																		
R7	RC65G...JS	A.B		14-A-3702-1	1K	±5	125 250W	70	130		3			9	.072		10126017	
R11	"	"		"	1.5K	"	"	"	"		.0			.1	.00			
R8	RC65H...FR	MECO		14-A-3702-1	6.1K	±1	125 250W	125	175		.6			.06	.006			
R12	"	"		"	3.01K	"	"	"	"		3			2	.03			
R13	"	"		"	56.2	"	"	"	"		.0			.0	.00		10126017	



**RATING AND STRESS DATA
RESISTORS**

ATM 1014
CONTRACTOR _____
SPEC NO. SEE SPECIFICATION
MODEL NO. _____

RATING AND STRESS DATA RESISTORS					RATED VALUES						APPLIED VALUES							SPEC NO. <u>SEE DRAWING</u>	
CIRCUIT SYMBOL	PART NO.	MFR.	MFR'S PART NO.	MIL TYPE	RESISTANCE (OHMS)	RESISTANCE TOLERANCE (%)	POWER (W) AND VOLTAGE DC	MAX TEMP FOR MAX POWER (°C)	TEMP FOR ZERO POWER (°C)	I _{DC} (MA)	V _{DC} (VOLTS)	V _{RMS} (VOLTS)	DUTY CYCLE %	POWER (MW)	STRESS RATIO	FAILURE RATE IN HTS (10 ⁻⁶)	RELIABILITY COMMENTS	REV	
R1	RCR07G-- JS	A.B		MIL-R-3701/4	3K	±5	250 250V	70	130		7.3	-	100	17	.063		1026008 (25KHz Csg)		
R2	"			"	430K		"				1.7	-	100	6.7	.026				
R10	RCR05G... JS			MIL-R-3701/4	20K		125 150V				4.7	-	50	1.1	.009				
R11	"	A.B		"	20K	±5	"	70	130		2	-	50	.2	.001				
R3	RNC55H.... R2	MEMO		MIL-R-5511/2	17.8K	±1	100 200V	125	175		4.7	-	100	1.24	.012				
R4					16.5K						5.3	-	50	1.7	.017				
R5					190K						4.1	-	50	.08	~0				
R6					190K						4.1	-	50	.08	~0				
R7					16.5K						5.3	-	50	1.7	.017				
R8					17.8K						4.7	-	100	1.24	.012				
R1	RNC55H.... R2	MEMO		MIL-R-5511/2	23.7K	±1	100 200	125	175		5.9	-	50	1.5	.015		10126008 (25KHz Csg)		
R1	RCR05.... JS	A.B		MIL-R-3701/4	33K	±5	125 250V	70	130		1.96			.12	~0		10126008 (25KHz Csg)		
R2					20K						.8			.003	~0				
R3					75K						.8			.008	~0				
R11					6.5K						11.2			18.5	.14				
R5					2K						9			40	.32				
R1					200K						6.4			.22	.002				
R1					250K						5.6			.15	.001				
R8	RCR05.... JS	A.B		MIL-R-3701/4	100K	±5	125 250V	70	130		6			.36	.002		10126008 (25KHz Csg)		



**RATING AND STRESS DATA
RESISTORS**

ATM 1014
CONTRACTOR _____
SPEC NO. See Component
MODEL NO. _____

RATING AND STRESS DATA RESISTORS					RATED VALUES					APPLIED VALUES							SPEC NO. <u>For Component</u>	
					RESISTANCE (OHMS)	RESISTANCE TOLERANCE (%)	POWER (W) AND VOLTAGE (V)	MAX TEMP FOR MAX POWER (°C)	TEMP FOR ZERO POWER (°C)	IDC (MA)	VDC (VOLTS)	V RMS (VOLTS)	DUTY CYCLE %	POWER (mW)	STRESS RATIO	FAILURE RATE IN BITS (10 ⁻⁹)	RELIABILITY COMMENTS	REV
R9	RES-5-100-35	A.B.		MIL-R-37-114	68K	±5	125 250V	70	130		3.2			.14	.001		10126005	
P10					117K						2.8			.17	.001			
R11					75K						10.6			1.5	.012			
R12					6.8K						1.4			.29	.002			
R13					200K						11			.6	.004			
R27					10K						11			.6	.004			
R29					10.2						.16			.0025	~0			
R30	RES-5-100-35	A.B.		MIL-R-37-114	47K	±5	125 250V	70	130		5			.5	.004		10126005	
RESISTORS IN SGU1834 HAVE SAME STRESS DATA AS THOSE IN SGU1834 SHOWN ABOVE																		
R1	RES-5-100-35	MERO		MIL-R-37-114	78.7K	±1	100 250V	125	175		~0			5	~0	~0	10126104 (TOP)	
R2	"				45.3K	1	"	"	"		4			50	.35	.002		
R3	"				523	"	"	"	"		~0			100	~0	~0		
R4	RES-5-100-35	MERO		MIL-R-37-114	267K	11	125 250V	"	"		2.5			100	.25	.002		
R5	RES-5-100-35			MIL-R-37-114	58K	±5	125 250V	70	130		3			100	.11	.001		
R6					150K						4.4			100	.16	.001		
R7					120K						4.4			100	.16	.001		
R8					3.7K						3.6			100	.25	.002		
R9					37K						3.6			100	.25	.002		
R10	RES-5-100-35			MIL-R-37-114	56K	±5	125 250V	70	130		3			100	.16	.001	10126104	

ATM 1014

CONTRACTOR _____

SPEC NO. SEE CONTINUED

MODEL NO. _____


**RATING AND STRESS DATA
RESISTORS**

					RATED VALUES					APPLIED VALUES						FAILURE RATE IN BITS (10 ⁻⁶)	RELIABILITY COMMENTS	REV
CIRCUIT SYMBOL	PART NO.	MFR.	MFR'S PART NO.	MIL TYPE	RESISTANCE (OHMS)	RESISTANCE TOLERANCE (%)	POWER (W) AND VOLTAGE DC	MAX TEMP FOR MAX POWER (°C)	TEMP FOR ZERO POWER (°C)	I _{DC} (MA)	V _{DC} (VOLTS)	V _{RMS} (VOLTS)	DUTY CYCLE	POWER (MW)	STRESS RATIO			
R11	RCR05G-...-E	A. B.		MIL R-37-01/4	12.5K	±5	125 250V	76	130		~0		100	~1	~0		10/12 6004 (70F)	
R12					11K						2.4		100	~52	~0.2			
R13					1.8K						~0		50	~0	~0			
R14					1K-1.5K						~0		50	~0	~0			
R15					5K-10K						1.6		100	~25	~0.2			
R16					22K-50K						~0		100	~0	~0			
R17					22K-50K						~0		100	~0	~0			
R18					11K						~0.1		100	~0	~0			
R19					12K						~0.6		100	~0.3	~0			
R20					22K-50K						~0		100	~0	~0			
R21					22K-50K						~0		100	~0	~0			
R22					75K						~0.8		100	~0.02	~0			
R23					32K						~0.1		100	~0	~0			
R24	RCR05G-...-J5	A. B.		MIL R-37-01/4	12.2	±5	125 250V	70	130		~0		100	~6	~0		10/12 6004	
R26	RCR05G-...-J5	A. B.		MIL R-37-01/4	320K	±5	125 250V	76	130		2.4		100	~25	~2		10/12 6004 (70F)	
R25					1K						5		100	~25	~2			
R26					1K						5		100	~25	~2			
R23	RCR05G-...-J5	A. B.		MIL R-37-01/4	1K	±5	125 250V	76	130		5		100	~25	~2		10/12 6004	

RATING AND STRESS DATA CAPACITORS					RATED VALUES						APPLIED VALUES							SPEC NO. <u>SEE COMMENTS</u>	
CIRCUIT SYMBOL	PART NO.	MFR.	MFR OR MIL TYPE	DIELECTRIC	N	CAPACITANCE	CAPACITANCE TOLERANCE (%)	WVDC AT 85°C (VOLTS)	WVDC AT 125°C (VOLTS)	VRMS OR VRIPPLE	VDC (VOLTS)	VRMS OR VRIPPLE (VOLTS)	TOTAL VOLTAGE (VOLTS)	FREQUENCY (HZ)	DUTY CYCLE (%)	STRESS RATIO VTOT/VRTD	FAILURE RATE IN BITS (10 ⁻⁹)	MODEL NO. _____	
																		RELIABILITY RECOMMENDATIONS	REV
C1	M39014/05-033	HEWLETT		CERAMIC		1000 PF	±10	100	50	-	3	-	3		100	.03		1012 6018	
C2	"	"		"		220 PF	"	"	"	-	~0		~0		100	~0		"	
C3	M39013/01-282	"		Ta ₂ O ₅		.68 PF	"	50	33	-	3		3		100	.06		1012 6018	
C1	M39014/05-033	HEWLETT		CERAMIC		1000 PF	±10	100	50	-	3		3		100	.03		1012 6009	
C2	"	"		"		100 PF	"	"	"	-	~0		~0		100	~0		"	
C3	M39013/01-282	KEMET		Ta ₂ O ₅		.68 PF	"	50	33	-	3		3		100	.06		"	
C1	M39014/05-033	HEWLETT		CERAMIC		.01 PF	±10	100	50	-	3		3		100	.03		1012 6016	
C4	" / 02-020	"		"		.1 PF	"	100	50	-	2		2		100	.02		"	
C2	M39013/01-282	KEMET		Ta ₂ O ₅		.01 PF	"	50	33	-	4		4		100	.08		"	
C3	" - 270	"		"		.01 PF	"	15	10	-	5		5		100	.03		"	
C5	M22M10	ELCOT		DIELECTRIC		220 PF	±1	100			3		3		100	.03		"	
C6	"	"		"		290 PF					4		4		100	.04		"	
C7	"	"		"		100 PF					4		4		100	.01		"	
C9	"	"		"		100 PF					6		6		100	.06		"	
C10	M22M10	"		"		290 PF		100			6		6		100	.06		"	
C6	M22M10	ELCOT		"		360 PF		500			3		3		100	.06		1012 6016	

P-PULSE, AC-ALTERNATING F-FILTER, DC-DIRECT CURRENT
TZ form 6-97 B (4-70)

LOADING AND STRESS DATA
CAPACITORS

RATING AND STRESS DATA CAPACITORS						RATED VALUES					APPLIED VALUES							SPEC NO. <u>SEE PART NUMBER</u>	
CIRCUIT SYMBOL	PART NO.	MFR.	MFR OR MIL TYPE	DIELECTRIC	N	CAPACITANCE	CAPACITANCE TOLERANCE (%)	WVDC AT 85°C (VOLTS)	WVDC AT 125°C (VOLTS)	VRMS OR VRIppLE	VDC (VOLTS)	VRMS OR VRIppLE (VOLTS)	TOTAL VOLTAGE (VOLTS)	FREQUENCY (HZ)	DUTY CYCLE (%)	STRESS RATIO V _{TOT} /V _{RTD}	FAILURE RATE IN HTS (10 ⁻⁶)	RELIABILITY RECOMMENDATIONS	REV
C1	M3704/12-1310	ALCOA				100 PF	±10	100	50		1		1	-	100	.01		1012 6010	
C2	M3704/12-1326	"				560 PF	"	"	"		7.4		7.4	-		.674		"	
C1	M3704/12-2294	ALCOA		CERAMIC		5600 PF	±10	200	200		2		2	-	100	.01		1012 6003	
C2	M3704/12-1441			Ta ₂ O ₅		100 PF	"	100	50		4		4	-	100	.04			
C3	-2209			"		100 PF	"	"	50		20		20	-	100	.02			
C4	-2202			"		100 PF	"	6	4		.01		.01	-	100	.002			
C5	HEMCO 5A021F	ALCOA				430 PF	±1	50	50		2		2	-	100	.04		1012 6003	
C1	M3704/12-0217	ALCOA		CERAMIC		100 PF	±10	200	200		4		4	-	100	.02		1012 6015	
C2	"			"		100 PF	"	"	"		4		4	-	100	.02			
C3	"			"		100 PF	"	"	"		4		4	-	100	.02			
C4	M3704/12-1206			"		220 PF	"	"	"		5		5	-	100	.025			
C5	"			"		220 PF	"	"	"		5		5	-	100	.025			
C6	M3704/1-7733	ALCOA		Ta ₂ O ₅		100 PF	"	10	7		5		5	-	100	.5		1012 6015	

P-PULSE, AC-ALTERNATING F-FILTER, DC-DIRECT CURRENT
Form 6-97 B (4-70)

RATING AND STRESS DATA
CAPACITORS

ATM

CONTRACT

SPEC NO. SEE COMMENTS

MODEL NO. _____

RATING AND STRESS DATA CAPACITORS					RATED VALUES							APPLIED VALUES							SPEC NO. <u>See Comments</u>	
CIRCUIT SYMBOL	PART NO.	MFR.	MFR OR MIL TYPE	DIELECTRIC	N	CAPACITANCE	CAPACITANCE TOLERANCE (%)	WVDC AT 85°C (VOLTS)	WVDC AT 125°C (VOLTS)	VRMS OR VRIIPPLE	VDC (VOLTS)	VRMS OR VRIIPPLE (VOLTS)	TOTAL VOLTAGE (VOLTS)	FREQUENCY (HZ)	DUTY CYCLE (%)	STRESS RATIO V _{TOT} /V _{RTD}	FAILURE RATE IN HTS (DO-3)	RELIABILITY RECOMMENDATIONS	REV	
C1	F32-47-201 EECB	KEMET		Al ₂ O ₃		.0156 uF	±1	50	-		5	-	5	-	100	.1		1C126017		
C2	M32-3/01-2832	"		Ta ₂ O ₅		.01 uF	±10	50	-		5	-	5	-	100	.1		"		
C1	M39-47/01-0310	KEMET		CERAMIC		.01 uF	±10	100	100		5	-	5	-	100	.05		1C126026		
C3	" -0295	"		"		.01 uF	"	100	100		6	-	6	-	100	.06		"		
C2	M32-3/01-2832	KEMET		Ta ₂ O ₅		.01 uF	"	50	33		0	6VP	-	-	100	.06		"		
C1	HRM-710201F	ACQUILA		CERAMIC		.002 uF	±1	100	100	-	4.7	-	4.7	-	100	.047		1C126002		
C2	"	"		"		.002 uF	±1	100	100	-	4.7	-	4.7	-	100	.047				
C3	M37-47/01-0073	"		CERAMIC		.47 uF	±10	200	200	-	2	-	2	-	100	.01				
C5	M37-47/01-273	KEMET		Ta ₂ O ₅		.37 uF	±10	10	7	-	4.7	-	4.7	-	100	.047				
C6	"	"		"		.37 uF	±10	10	7	-	4.7	-	4.7	-	100	.047		1C126008		
C1	M32-3/01-2832	KEMET		Ta ₂ O ₅		.017 uF	±10	50	33	-	10	-	10	-	100	.2		1C126015 (SEMI 2400)		
C3	M32-3/01-2763	"		"		.56 uF	±10	35	23	-	12	-	12	-	100	.34		"		
C4	M32-3/01-2805	"		"		.015 uF	±10	50	33	-	9.5	-	9.5	-	100	.05		"		

W-P-PULSE, AC-ALTERNATING F-FILTER, DC-DIRECT CURRENT

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ATM 1014

CONTRACTOR _____

SPEC NO. 1012 6004

MODEL NO. _____

RATING AND STRESS DATA
CAPACITORS

RATING AND STRESS DATA CAPACITORS					RATED VALUES						APPLIED VALUES							SPEC NO. 1012 6004	
CIRCUIT SYMBOL	PART NO.	MFR.	MFR OR MIL TYPE	DIELECTRIC	N	CAPACITANCE	CAPACITANCE TOLERANCE (%)	WVDC AT 85°C (VOLTS)	WVDC AT 125°C (VOLTS)	VRMS OR VRIIPPLE	VDC (VOLTS)	VRMS OR VRIIPPLE (VOLTS)	TOTAL VOLTAGE (VOLTS)	FREQUENCY (HZ)	DUTY CYCLE (%)	STRESS RATIO VTOT/VRTD	FAILURE RATE IN BITS (10-8)	MODEL NO.	
																		RELIABILITY RECOMMENDATIONS	
C1	F30A5601F50	KEMET		Polystyrene		5600 PF	±1	50	-		.01	-	.01	-	50	.20		1012 6004	
C2	M3904/RT-0303	HEROVAL		CERAMIC		33 PF	±10	100	50		2	-	2	-	100	.01			
C3	-0302	"		"		33 PF		100	50		2	-	2	-	100	.01			
C4	-0306	"		"		100 PF		100	50		4	-	4	-	100	.04			
C5	-0306	"		"		100 PF		100	50		4	-	4	-	100	.04			
C6	-0303	"		"		22 PF		100	50		2	-	2	-	100	.01			
C7	-0310	HEROVAL		"		68 PF	±10	100	50		2	-	2	-	50	.01		1012 6004	
C1	F30A5601F50	KEMET		Polystyrene		5600 PF	±1	50	-		5	-	5	-	100	.1		1012 6003	
C2	M3904/RT-2133	"		TiO2		68 PF	±10	50	33		5	-	5	-	100	.1		"	
C19	M3904/RT-2133	HEROVAL		CERAMIC		33 PF	±10	200	200		5	-	5	-	100	.025		1012 6003 (HEROVAL)	
C15	"	"		"		33 PF		"	"		5	-	5	-	100	.025			
C16	"	"		"		33 PF		"	"		5	-	5	-	100	.025			
C17	"	"		"		33 PF		"	"		5	-	5	-	100	.025		1012 6003	

-PULSE, AC-ALTERNATING F-FILTER, DC-DIRECT CURRENT

JAN 6-97 B (4-70)



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AGING AND STRESS DATA CAPACITORS

ATM 1014

CONTRACT

SPEC NO. SEE COMMENTS

MODEL NO. _____

ATING AND STRESS DATA CAPACITORS						RATED VALUES					APPLIED VALUES								SPEC NO. <u>SEE COMMENTS</u>	
CIRCUIT SYMBOL	PART NO.	MFR.	MFR OR MIL TYPE	DIELECTRIC	K	CAPACITANCE	CAPACITANCE TOLERANCE (%)	WVDC AT 85°C (VOLTS)	WVDC AT 125°C (VOLTS)	VRMS OR VRIPPLE	VDC (VOLTS)	VRMS OR VRIPPLE (VOLTS)	TOTAL VOLTAGE (VOLTS)	FREQUENCY (HZ)	DUTY CYCLE (%)	STRESS RATIO VTOT/VRTD	FAILURE RATE IN BITS(MO-B)	MODEL NO. _____		
																		RELIABILITY RECOMMENDATIONS		REV
C1	M37003/01-2249	KEMET				3.3 uF	±10	15	8		5		5		50	.3		10126007		
C2	M37004/01-0317	HERNOLD				1.0 uF	±10	200	200		6		6		50	.003				
C3	M37004/01-2536	KC-157				1.0 uF	±10	50	33		29.2		29.2		50	.58				
C4	M37004/01-0247	ILC457				1.0 uF	±10	200	200		5		5		50	.02				
C5	M37004/01-2167	HERNOLD				1.0 uF	±10	100	100		29.2		29.2		50	.3				
																</				

P-P-PULSE,AC-ALTERNATING F-FILTER,DC-DIRECT CURRENT

form 6-97 B (4-70)

CIRCUIT SYMBOL	PART NUMBER	MANUFACTURER	MAX. RATED TEMPERATURE	POWER APPLIED RATED	SUPPLY VOLTAGE APPLIED RATED	INPUT VOLTAGE APPLIED RATED	SUPPLY CURRENT APPLIED RATED	STRESS RATIO	RELIABILITY COMMENTS
Z1	HA2602-2	HARRIS SEMI	125°C	10 mA 300 mA	± 5 V ± 22.5 V	0.5 V ± 12 V	ASSUME MAX CURRENT 1 mA AT Vcc = 35VDC	.03	1012618
Z2	"	"	"	10 mA 300 mA	± 5 V ± 22.5 V	0.5 V ± 12 V	ASSUME MAX CURRENT 1 mA AT Vcc = 35VDC	.03	"
Z1	HA2602-2		125°C	10 mA 300 mA	± 5 V ± 22.5 V	0.5 ± 12	ASSUME MAX CURRENT 1 mA AT Vcc = 35V	.03	10126109
Z2	"		"					.03	"
Z1	HA2602-2		125°C	10 mA 300 mA	± 5 V ± 22.5 V	0.5 ± 12	ASSUME MAX CURRENT 1 mA AT Vcc = 35V	.03	10126116
Z2	"		"					.056	"
Z1	HA2602-2		125°C	10 mA 300 mA	± 5 V ± 22.5 V	0.5 ± 12	ASSUME MAX CURRENT 1 mA AT Vcc = 35V	.03	10126111
Z2	HA2602-2		"					.03	"
Z1	HA2602-2		125°C	10 mA 300 mA	± 5 V ± 22.5 V	0.5 ± 12	ASSUME MAX CURRENT 1 mA AT Vcc = 35VDC	.03	10126117
Z1	HA2602-2	HARRIS SEMI	125°C	10 mA 300 mA	± 5 V ± 22.5 V	0.5 ± 12	ASSUME MAX CURRENT 1 mA AT Vcc = 35VDC	.03	10126113

LOADING AND STRESS DATA AMPLIFIER, I.C.

ATM 1014**CONTRACTOR**

SPEC. NO. See Chapter 2

MODEL NO. _____

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ATM 1014

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CONTRACTOR _____

SPEC NO. SEE COMMENTS

MODEL NO. _____

RATING AND STRESS DATA
TRANSISTORS

CIRCUIT SYMBOL	PART NO.	MFG.	TYPE	V _{CE} NORMAL OFF VOLTAGE	V _{CE} VOLTS (PEAK)	V _{EB} (VOLTS)	I _C MILLIAMPS PEAK	I _C MILLIAMPS AVERAGE	DUTY CYCLE	P _{TOTAL} (AVERAGE) WATTS	P _{PEAK} (WATTS)	FAILURE RATE IN HTS (10 ⁻⁹)	RELIABILITY COMMENTS	Δ
				APPLIED	APPLIED	APPLIED	APPLIED	APPLIED	T _{ON}	APPLIED	APPLIED			
				RATED	RATED	RATED	RATED	RATED	T _{OFF}	RATED	RATED			
Q1	2N930	T.I	NPN	2	5	+0	200 mA	0.2	100	0.7 mW	-	1.0	10126316	
Q2	2N2605	RAYTHEON	PNP	45	45	5	30 mA	30 mA	0	0.3 mW	-	4.0	10126316	
Q1	2N930	T.I	NPN	3	3	6	4 mA	-	100	0.4 mW	-	1.0	10126317	
Q3	"	"	"	45	45	5	30 mA	30 mA	0	0.3 mW	-	1.0	"	
Q2	2N2132A	T.I	NPN	45	45	18	100 mA	100 mA	0	0.3 mW	-	4.0	"	
Q1	2N3251A	T.I	PNP	6	6	6	1 mA	-	100	0.1 mW	-	1.5	10126318	
Q3	"	"	"	60	60	5	50 mA	50 mA	0	0.6 mW	-	1.5	"	
Q2	2N2369A	"	NPN	40	40	10	50 mA	50 mA	0	0.2 mW	-	1.0	"	
Q5, Q7	2N3354	SILICONIX	CHANNEL FET	N/A	N/A	N/A	N/A	N/A	100	0.1 mW	-	1.0	10126319	
A1A	2N3811	NATL	200L PNP	60	60	5	50 mA	50 mA	0	0.6 mW	-	3.0		
Q1B	"	"	"	60	60	5	50 mA	50 mA	0	0.6 mW	-			
Q2A	"	"	"	60	60	5	50 mA	50 mA	0	0.6 mW	-			
Q2B	"	"	"	60	60	5	50 mA	50 mA	0	0.6 mW	-			
Q3	2N2222A	T.I	NPN	50	50	6	200 mA	200 mA	0	0.5 mW	-	1.0		
Q4	"	"	"	50	50	6	200 mA	200 mA	0	0.5 mW	-			
Q6	"	"	"	50	50	6	200 mA	200 mA	0	0.5 mW	-			



RATING AND STRESS DATA
TRANSISTORS

CIRCUIT SYMBOL	PART NO.	MFG.	TYPE	VCE NORMAL OFF VOLTAGE	VCE VOLTS (PEAK)	VEB (VOLTS)	IC MILLIAMPS PEAK	IC MILLIAMPS AVERAGE	DUTY CYCLE	P TOTAL (AVERAGE) WATTS	P PEAK (WATTS)	FAILURE RATE IN HTS (10 ⁻⁶)	RELIABILITY COMMENTS	AGE
				APPLIED	APPLIED	APPLIED	APPLIED	APPLIED	T ON	APPLIED	APPLIED			
				RATED	RATED	RATED	RATED	RATED	T OFF	RATED	RATED			
81	2N222A	T.I.	NPN	-	5	0	1 mA	-	100	.1 mW	-	1.0	1012 GC15	
64			"	50	50	6	80 mA	80 mA	0	.50 W	-			
65			"	50	50	6	80 mA	80 mA	0	.13 mW	-			
66			"	50	50	6	80 mA	80 mA	0	.50 W	-			
67			"	50	50	6	80 mA	80 mA	0	.50 W	-			
68			"	50	50	6	80 mA	80 mA	0	.50 W	-			
69	2N222A		"	50	50	6	80 mA	80 mA	0	.50 W	-			
Q2	2N2907A		PNP	60	60	5	60 mA	60 mA	0	.4 W	-	1.5		
Q3			"	60	60	5	60 mA	60 mA	0	.4 W	-			
Q6			"	60	60	5	60 mA	60 mA	0	.4 W	-			
Q7			"	60	60	5	60 mA	60 mA	0	.4 W	-			
Q10	2N2907A	T.I.	"	60	60	5	60 mA	60 mA	0	.4 W	-		1012 GC15	
Q1A	2N2907A	T.I.	NPN	60	60	6	80 mA	80 mA	0	.50 W	-	2.0	1012 GC15	
Q1B		"	"	60	60	6	80 mA	80 mA	0	.50 W	-			
Q2A		"	"	60	60	6	80 mA	80 mA	0	.50 W	-			
Q2B	2N2907A	"	"	60	60	6	80 mA	80 mA	0	.50 W	-			
Q3	2N3251A	"	PNP	60	60	5	60 mA	60 mA	0	.4 W	-	1.5	1012 GC15	
Q1	2N930	T.I.	NPN	3	3	.6	11 mA	11 mA	100	.4 W	-	1.0	1012 GC15	
Q2	2N2907A	"	PNP	60	60	5	60 mA	60 mA	0	.4 W	-	2.0		



RATING AND STRESS DATA TRANSISTORS

RATING AND STRESS DATA TRANSISTORS				V _{CE} NORMAL OFF VOLTAGE	V _{CE} VOLTS (PEAK)	V _{EB} (VOLTS)	I _C MILLIAMPS PEAK	I _C MILLIAMPS AVERAGE	DUTY CYCLE	P _{TOTAL} (AVERAGE) WATTS	P _{PEAK} (WATTS)	MODEL NO.	
CIRCUIT SYMBOL	PART NO.	MFG.	TYPE	APPLIED	APPLIED	APPLIED	APPLIED	APPLIED	T _{ON}	APPLIED	APPLIED	FAILURE RATE IN HTS (10 ⁻⁶)	RELIABILITY COMMENTS
				RATED	RATED	RATED	RATED	RATED	T _{OFF}	RATED	RATED		
G1	2N930	T. I.	NPN	5.2	5.2	1	.5 mA	.5 mA	50	.5 mW		1.0	25-27-78
G2		"	"	4.7	4.7	.6	.5 mA	—	50	.5 mW		1	
G3		"	"	4.5	4.5	.6	.5 mA	—	50	.5 mW		1	
G4	2N930	"	"	4.7	4.7	.6	.5 mA	—	50	.5 mW		1	
G5	2N2367A	"	"	4.5	4.5	.6	.5 mA	—	50	.5 mW		1.0	10/26/88
G1	2N2484	Philips	NPN	12	12	5	1.65 mA	—	—	.66 mW		1.0	(5000000000)
G3		"	"	12	12	6	50 mA	—	—	.36 mW		1.0	11/26/85
G4	2N2484	"	"	60	60	6	50 mA	50 mA	—	.66 mW		1.0	
G2	2N2907A	T. I.	PNP	12	12	5	1.65 mA	—	—	.66 mW		1.5	
G5	"	"	"	40	40	5	60 mA	—	—	.4 mW		1.5	10/26/85
TRANSISTORS IN 560105 3.4 HAVE THE SAME DATA AS THESE IN 560105 3.2 560105 3.4													
G3	2N2367A	T. I.	NPN	12	12	0	.4 mA	—	100	.4 mW		1.0	10/26/04
G4		"	"	40	40	0	.4 mA	—	100	.4 mW		1.0	
G5		"	"	40	40	0	.4 mA	—	100	.4 mW		1.0	
G6	2N2367A	"	"	11	11	.6	.6 mA	—	100	.6 mW		1.0	
G1	2N3384		DETAILED FET	N/A	N/A	N/A	N/A	N/A	100	.1 mW		1.0	
G2	2N3384		"	N/A	N/A	N/A	N/A	N/A	100	.1 mW		1.0	10/26/04

**RATING AND STRESS DATA
DIODES**

ATM 1014

CONTRACT#

SPEC NO. 1014-001

MODEL NO. _____

CIRCUIT SYMBOL	PART NO.	MFG	MFG OR MIL TYPE		V _R	I _R	I _{PEAK}	I _{AVERAGE} (FORWARD)	DUTY CYCLE	P _{TOTAL} (AVERAGE)	P _{PEAK}	FAILURE RATE IN HTS (10 ⁻⁶)	RELIABILITY RECOMMENDATIONS	REV
					APPLIED RATED	APPLIED RATED	APPLIED RATED	APPLIED RATED	T _{ON} T _{OFF}	APPLIED RATED	APPLIED RATED			
CR1	1N4148	T.I			2 75	<.01 mA 50 mA	3 uA 600 mA	- 400 mA	<50	2.5 mW 500 mW	-		1012 6010	
CR2	"	"			2.5 75	<.01 mA 50 mA	20 uA 600 mA	- 400 mA	<50	200 500 mW	-		"	
CR1	1N4148	T.I			2.9 75	~0 50 mA	.5 mA 600 mA	- 400 mA	<50	2 mW 500 mW	-		1012 6011	
CR2	"	"			2.5 75	~0 50 mA	1 mA 600 mA	- 400 mA	<50	~0 500 mW	-		"	
CR3	"	"			2.9 75	~0 50 mA	700 uA 600 mA	- 400 mA	<50	.7 mW 500 mW	-		"	
CR1	1N4148	T.I			7 75	<.1 50 mA	330 uA 600 mA	- 400 mA	<50	330 mW (For 105°C) 500 mW	-		1012 6013	
CR1	1N4148	T.I			2.7 75	~0 50 mA	.5 mA 600 mA	- 400 mA	<50	2 mW 500 mW	-		1012 6-117	
CR2	"	"			2.5 75	~0 50 mA	1 mA 600 mA	- 400 mA	<50	~0 500 mW	-		"	
CR3	"	"			2.7 75	~0 50 mA	700 uA 600 mA	- 400 mA	<50	.7 mW 500 mW	-		"	
CR1	1N4148	T.I			5 75	<.1 mA 50 mA	2 uA 600 mA	- 400	<50	2.0 mW 500 mW	-		1012 6126	
CR1	1N4148	T.I			2.7 75	~0 50 mA	.5 mA 600 mA	- 400 mA	<50	2 mW 500 mW	-		1012 6127	
CR2	"	"			2.5 75	~0 50 mA	1 mA 600 mA	- 400 mA	<50	~0 500 mW	-		"	
CR3	"	"			2.7 75	~0 50 mA	700 uA 600 mA	- 400 mA	<50	.7 mW 500 mW	-		"	

CONTRACTOR

SPEC NO. *See Envelope*

MODEL NO.

TIME-ZERO Corporation
Torrance, California 90503RATING AND STRESS DATA
DIODES

CIRCUIT SYMBOL	PART NO.	MFG	MFG OR MIL TYPE		V _R	I _R	I _{PEAK}	AVERAGE (FORWARD)	DUTY CYCLE	P _{TOTAL} (AVERAGE)	P _{PEAK}	FAILURE RATE IN HTS (10 ⁻⁶)	RELIABILITY RECOMMENDATIONS	2
					APPLIED RATED	APPLIED RATED	APPLIED RATED	APPLIED RATED	T _{ON} T _{OFF}	APPLIED RATED	APPLIED RATED			
CR3	1N4145	T. I			~11 75	~6 50 mA	41 mA 600 mA	- 100 mA	10 0	4 mW 500 mW			10126002	
CR4		"			4.77 75	2.1 mA 50 mA	.3 mA 600 mA	- 400 mA	110 0	.3 mW 500 mW				
CR5		"			4.77 75	2.1 mA 50 mA	.3 mA 600 mA	- 400 mA	110 0	.3 mW 500 mW				
CR6		"			4.7 75	~1 50 mA	.05 mA 600 mA	- 400 mA	16 0	.05 mW 500 mW				
CR7	1N4146	"			4.7 75	~6 50 mA	.05 mA 600 mA	- 400 mA	10 0	.05 mW 500 mW			10126002	
CR1	1N4146	T. I			1 75	~0 50 mA	16 mA 600 mA	- 400 mA	100 0	16 mW 500 mW			10126005	
CR2		"			11 75	0 50 mA	12 mA 600 mA	0 400 mA	100 0	0 500 mW				
CR6		"			1 75	~0 50 mA	12 mA 600 mA	- 400 mA	0 100	12 mW 500 mW				
CR7	1N4148	"			11 75	0 50 mA	12 mA 600 mA	0 400 mA	100 0	0 500 mW			10126002	



TIME-SEA Corporation
Torrance, California 90503

RATING AND STRESS DATA

RATINGS AND STRESS DATA DIODES				MODEL NO. _____									
CIRCUIT SYMBOL	PART NO.	MFG	MFG OR MIL TYPE	V _R	I _R	P _{PEAK}	AVERAGE (FORWARD)	DUTY CYCLE	P _{TOTAL} (AVERAGE)	P _{PEAK}	FAILURE RATE IN HTS (10 ⁻⁶)	RELIABILITY RECOMMENDATIONS	
				APPLIED RATED	APPLIED RATED	APPLIED RATED	APPLIED RATED	T _{ON} T _{OFF}	APPLIED RATED	APPLIED RATED			
C81	1N914	T. J		0	6	1 mW	-	50	1007	-		10/2 6007	
				75	5 mA	225 mW	225 mW	50	250 mW	-			
C83				0.7	5	1.5 mW	-	50	1.5 mW	-			
				75	5 mA	225 mW	225 mW	50	250 mW	-			
C84				0.7	5	1.5 mW	-	50	1.5 mW	-			
				75	5	225 mW	225 mW	50	250 mW	-			
C85				27.2	5	65 mW	-	50	65 mW	-			
				75	5	225 mW	225 mW	50	250 mW	-			
C86				27.2	5	65 mW	-	50	65 mW	-			
				75	5	225 mW	225 mW	50	250 mW	-			
C87				27.2	5	65 mW	-	50	65 mW	-			
				75	5	225 mW	225 mW	50	250 mW	-			
C88				27.2	5	65 mW	-	50	65 mW	-			
				75	5	225 mW	225 mW	50	250 mW	-			
C89				12	5	20 mW	-	50	20 mW	-			
				75	5	225 mW	225 mW	50	250 mW	-			
C90	1N914	T. J		12	5	20 mW	-	50	20 mW	-		10/2 6007	
				75	5	225 mW	225 mW	50	250 mW	-			

MODEL NO.



TIME-2.1.1 corrected
Taccogna, Gellera's 20003

RATING AND STRESS DATA ZENER DIODES

[illegible]