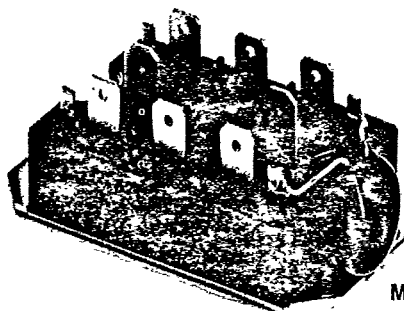
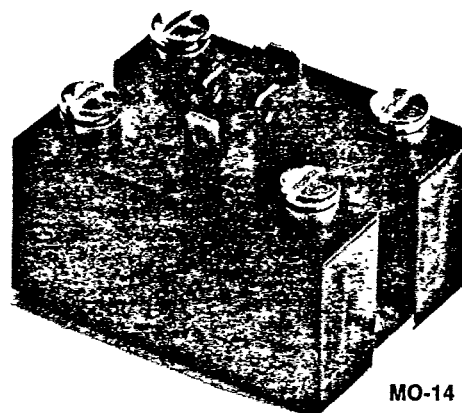


POWER MODULES



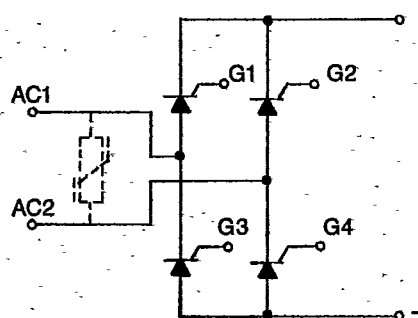
MO-12



MO-14

Average output current @ Base plate temp. 85°C		25A		50A	
Input voltage (RMS)		120	240	120	240
NATIONAL PART NUMBERS	Complete circuit	WV2BH25C	WV2BH25E	P231KW	P232KW
	W/O F.W. Diode				
	W/O MOV protector	W2BH25C	W2BH25E	P231W	P232W
	W/O either option				
I _{TSM} Peak one cycle surge current (PK Amps)		300		600	
I ² t For fusing at 8.3 msec (A ² sec)		370		1500	
V _{TM} Max. peak on-state volts @ peak amps., T _J = 25°C		1.6 50A		1.6 100A	
dv/dt Min. rate of voltage rise (V/μsec)		20		20	
V _{GT} Max gate volts		2.5		3	
I _{GT} Max. gate current		50		150	
Isolation voltage (RMS)		2500		2500	
R _{θJA} Thermal Impedance Case-to-Sink (°C/W)		.1		.1	
Ambient temperature range °C		-40 to +125		-40 to +125	
T _J Max junction operating temperature °C		125		125	
Package Outline Number		MO-12		MO-14	

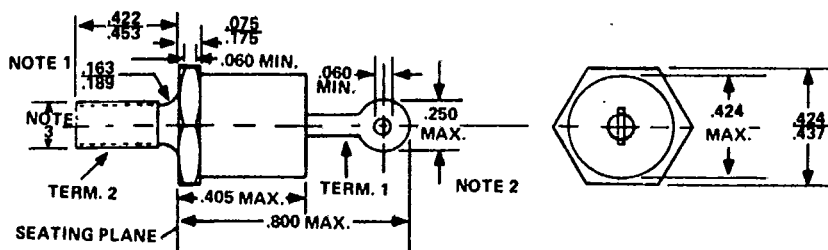
Circuit



OUTLINE DRAWINGS

T-91-20

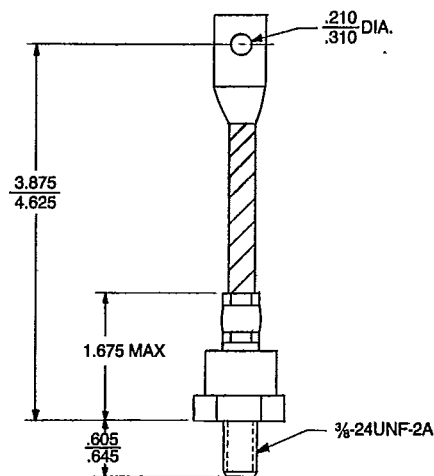
DO-4



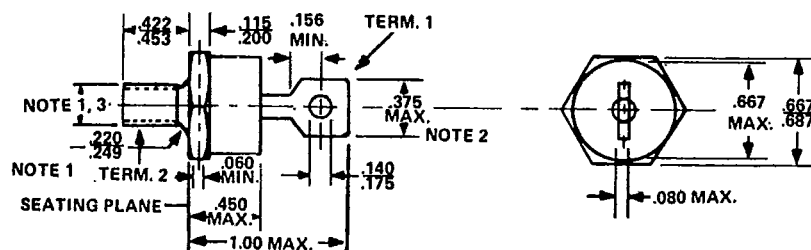
NOTES:

1. COMPLETE THREADS TO EXTEND TO WITHIN 2-1/2 THREADS OF SEATING PLANE.
2. ANGULAR ORIENTATION OF THIS TERMINAL IS UNDEFINED.
3. 10-32 UNF-2A MAXIMUM PITCH DIAMETER OF PLATED THREADS SHALL BE BASIC PITCH DIAMETER (.1697", 4.29 MM) REF. (SCREW THREAD STANDARDS FOR FEDERAL SERVICES 1957) HANDBOOK H28 P1.

DO-8



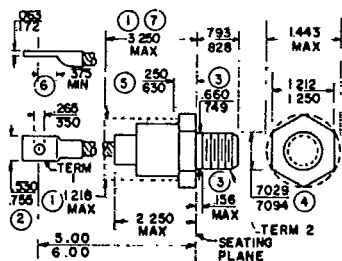
DO-5



NOTES:

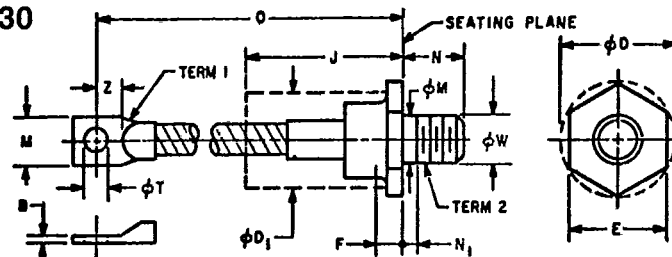
1. COMPLETE THREADS TO EXTEND TO WITHIN 2-1/2 THREADS OF SEATING PLANE.
2. ANGULAR ORIENTATION OF THIS TERMINAL IS UNDEFINED.
3. 1/4-28 UNF-2A. MAXIMUM PITCH DIAMETER OF PLATED THREADS SHALL BE BASIC PITCH DIAMETER (.2268", 5.74 MM) REF. (SCREW THREAD STANDARDS FOR FEDERAL SERVICES 1957) HANDBOOK H28 1957 P1.
4. MINIMUM FLAT.

DO-9



1. The device with exception of the hexagon, thread, and flexible lead extension lies within the cylinder defined by 1.218 and length 3.25.
2. Angular orientation of terminal with respect to hexagonal portion is undefined. Square or radius on end of terminal is optional.
3. Length of incomplete or undercut threads.
4. Pitch diameter of 3/4-16 UNF-2A (coated) threads (SAS B1.1-1960).
5. A chamfer (or undercut) on one or both ends of the hexagonal portion is optional.
6. Minimum flat.
7. Seated height with lead bent at right angle.

DO-30



1. CONTOUR AND ORIENTATION OF TERMINAL LUG IS UNDEFINED.
2. THE BODY OF THE DEVICE, WITH THE EXCEPTION OF THE HEXAGON, THREAD, AND FLEXIBLE LEAD EXTENSION, LIES WITHIN THE CYLINDER DEFINED BY D1 AND LENGTH J.
3. A CHAMFER (OR UNDERCUT) ON ONE OR BOTH ENDS OF THE HEXAGONAL PORTION IS OPTIONAL.
4. SEATED HEIGHT WITH THE LEAD BENT AT RIGHT ANGLE.
5. LENGTH OF INCOMPLETE OR UNDERCUT THREADS OF D1.
6. PITCH DIA. OF 1/2-20 UNF-2A (COATED) THREADS (ASA B1.1-1960).
7. MINIMUM FLAT.

SYMBOL	INCHES MIN.	INCHES MAX.	MILLIMETERS MIN.	MILLIMETERS MAX.	NOTES
B	.035	.100	.89	2.54	1
D	-	1.227	-	31.16	-
D1	-	1.031	-	26.18	2
E	1.031	1.063	26.19	27.00	-
F	.187	.500	4.8	12.7	3
J	-	2.500	-	63.50	2, 4
M	.437	.650	11.1	16.5	1
DM	.425	.499	10.80	12.67	5
N	.605	.645	15.37	26.38	-
N1	-	.125	-	3.17	5
0	4.250	4.750	108.0	120.6	-
OT	.260	.296	6.61	7.51	-
OW	.4619	.4675	11.73	11.874	6
Z	.312	-	7.93	-	7

MILLIMETER DIMENSIONS ARE DERIVED FROM ORIGINAL INCH DIMENSIONS.

OUTLINE DRAWINGS

DO-200AA

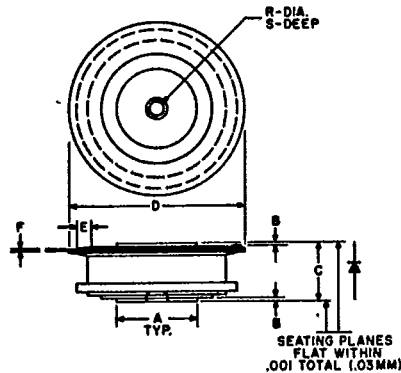
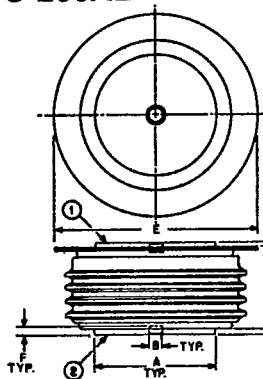


TABLE OF DIMENSIONS
Conversion Table

SYM	DECIMAL INCHES		METRIC MM	
	MIN.	MAX.	MIN.	MAX.
A	.744	.752	18.89	19.10
B	.030	.060	.76	1.52
C	.515	.565	13.06	14.35
D	1.600	1.656	40.84	42.06
E	.110	-	2.79	-
F	.031	.017	.33	.43
R	.135	.145	3.42	3.68
S	.067	.063	1.70	2.11

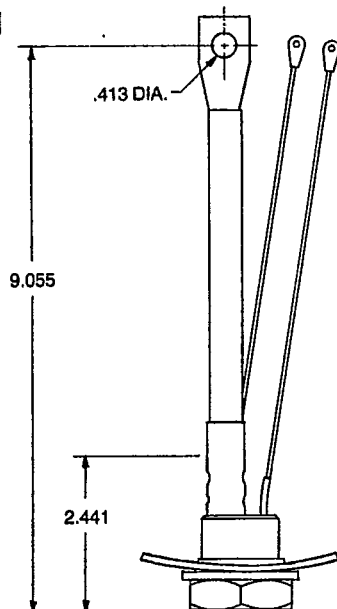
DO-200AB



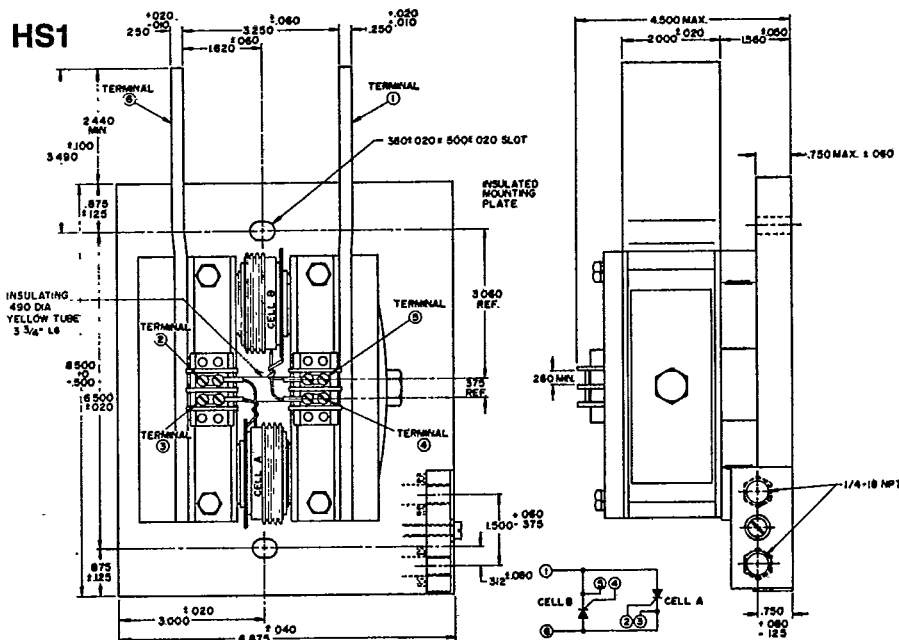
T-91-20

SYM	INCHES		METRIC MM	
	MIN.	MAX.	MIN.	MAX.
A	1.333	1.343	33.86	34.11
B	1.35	1.45	34.2	36.8
C	1.018	1.065	25.85	27.06
D	0.30	1.10	.76	-
E	2.240	2.300	56.89	58.42
F	0.70	0.90	3.55	4.06

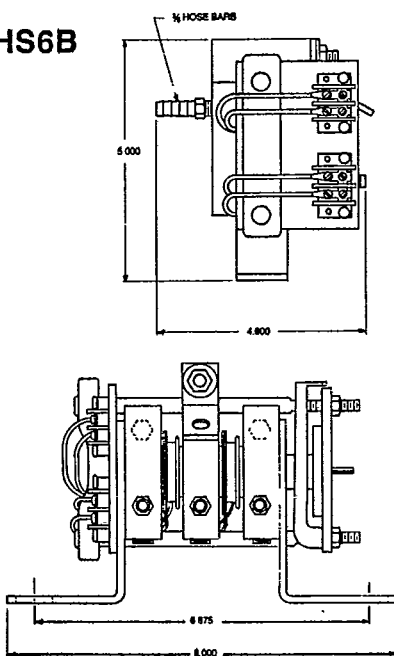
F-1



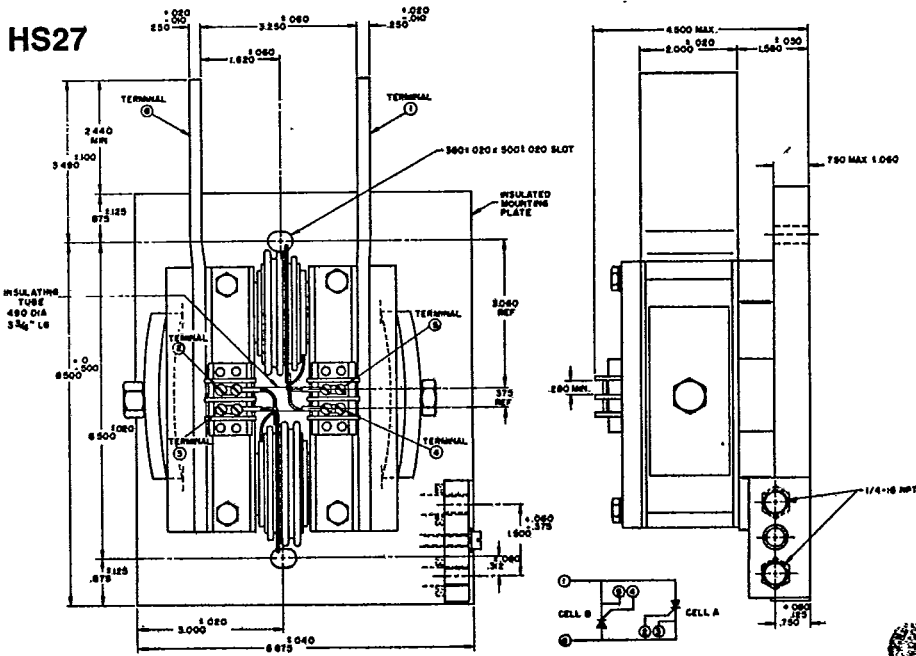
HS1



HS6B



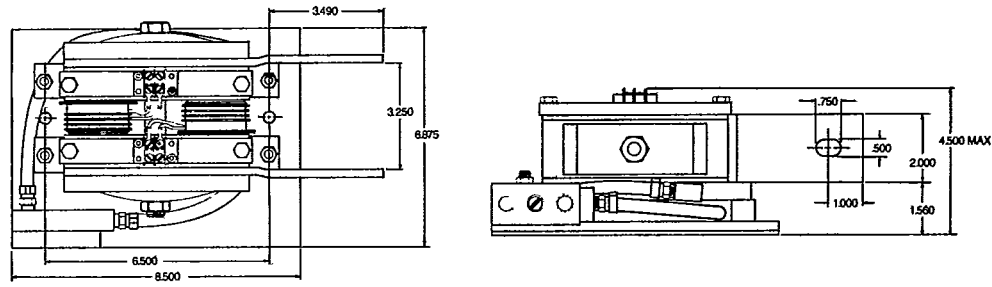
HS27



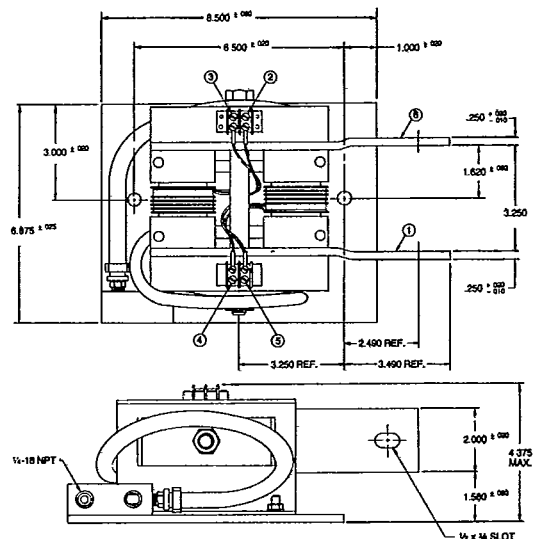
OUTLINE DRAWINGS

T-91-20

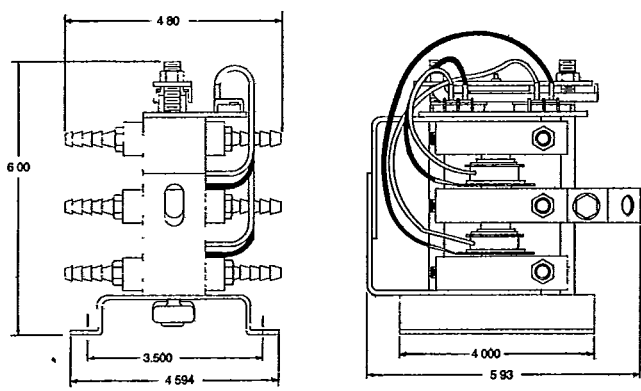
HS69



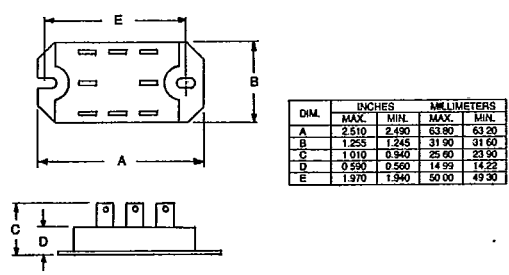
HS82



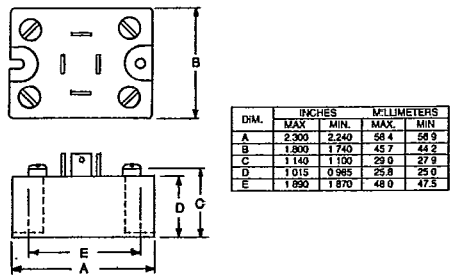
HS86



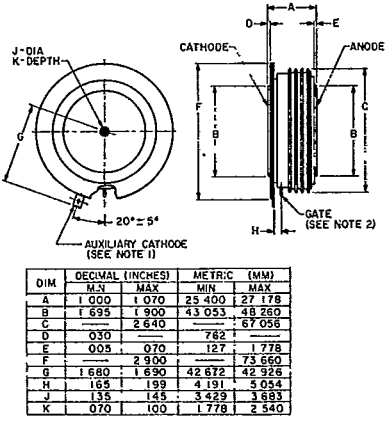
MO-11, MO-12



MO-13, MO-14

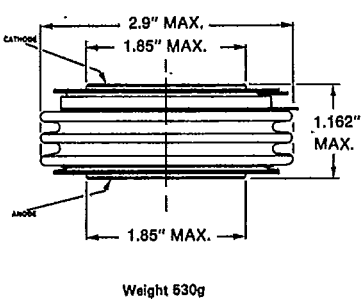


P-4

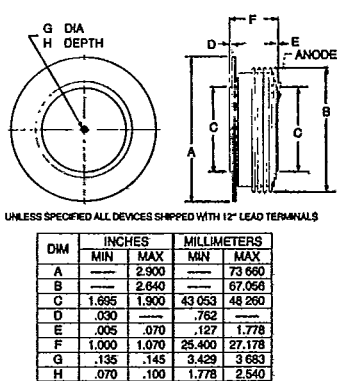


NOTES
1 USES AMP #4280-2 FAST-ON OR EQUIVALENT
2 USES AMP #6059B-1 CONNECTOR OR EQUIVALENT
3 UNLESS SPECIFIED ALL DEVICES WILL BE SHIPPED WITH 12" LEADS WITH RING TERMINALS

P-7



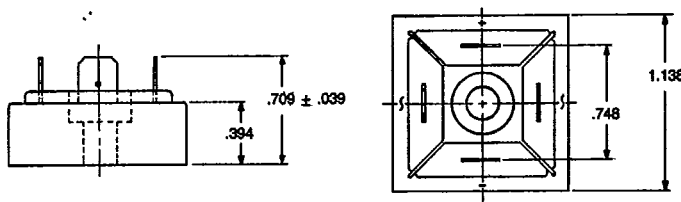
P-9



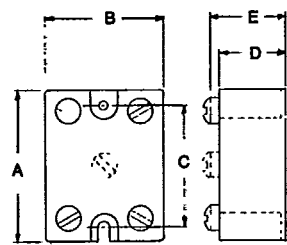
OUTLINE DRAWINGS

T-91-20

RB-1

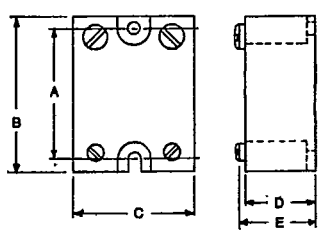


RB-2, RB-3



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	2.240	2.300	56.9	58.4
B	1.740	1.800	44.2	45.7
C	1.870	1.890	47.5	48.0
D	0.985	1.015	25.0	25.8
E	1.100	1.140	27.9	29.0

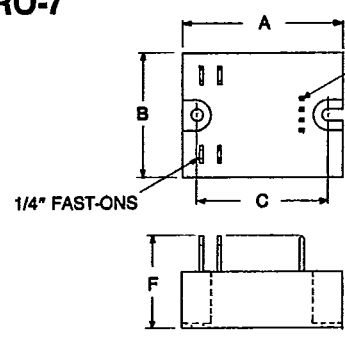
RO-1, RO-3, RO-5



SOLID STATE RELAY

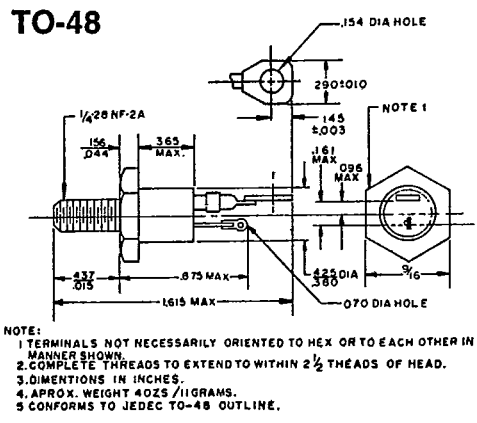
Dim.	RO-1		RO-2		RO-5	
	Dec.	MM	Dec.	MM	Dec.	MM
A	1.87	47.5	1.87	47.5	1.87	47.5
B	2.25	57.2	2.25	57.2	2.25	57.2
C	1.75	44.45	1.75	44.45	1.75	44.45
D	0.93	23.62	0.92	20.83	.75	19.0
E	1.10	27.94	0.90	22.86	.875	22.2

RO-7

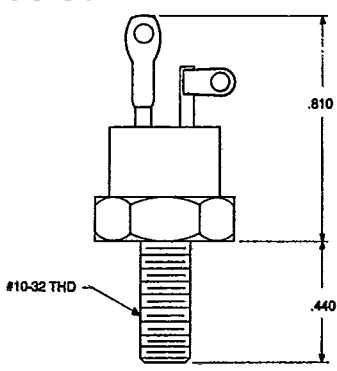


DIM	INCHES	MM
A	2.250	57.20
B	1.750	44.45
C	1.870	47.50
D	0.820	20.83
E	1.445	36.70
F	1.320	33.53

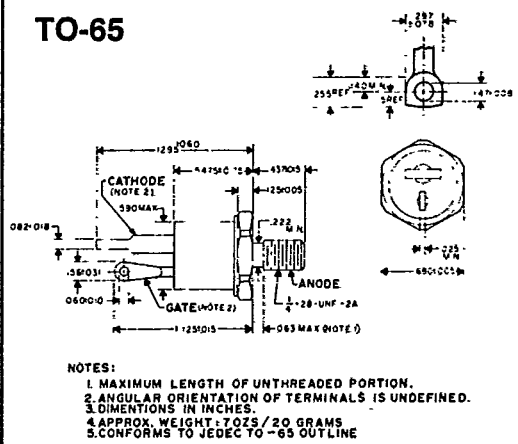
TO-48



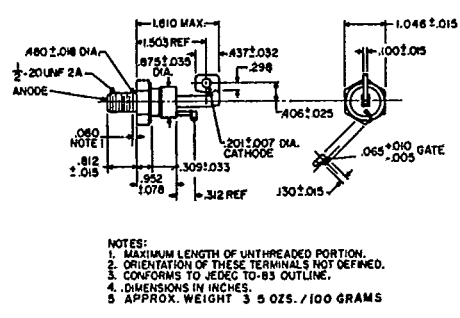
TO-64



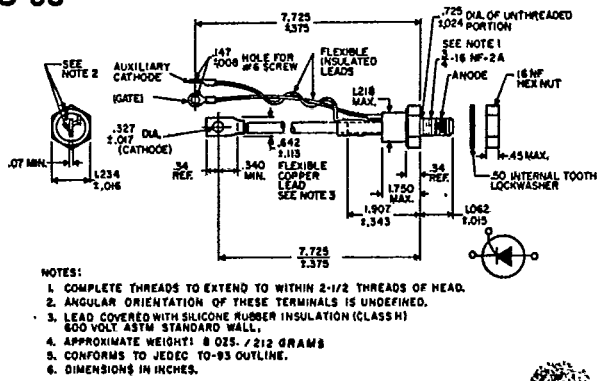
TO-65



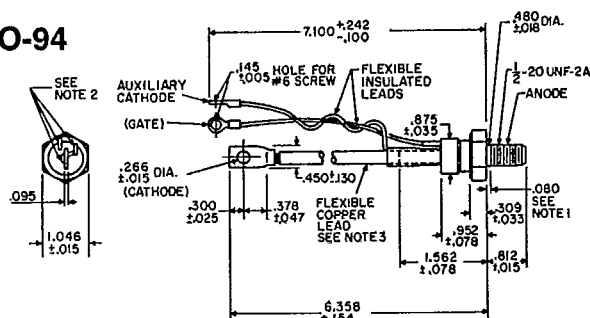
TO-83



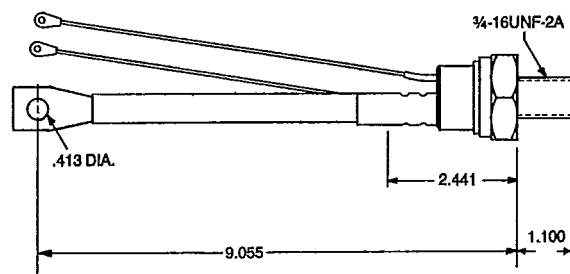
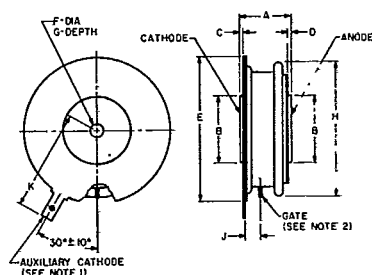
TO-93



OUTLINE DRAWINGS

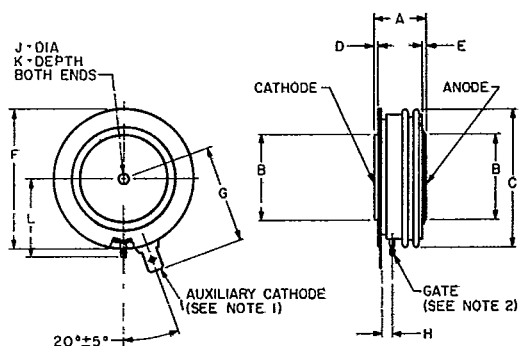
TO-94


- NOTES:
 1. MAXIMUM LENGTH OF UNTHREADED PORTION.
 2. ORIENTATION OF THESE TERMINALS IS UNDEFINED.
 3. LEAD COVERED WITH SILICONE RUBBER INSULATION (CLASS H) 600 VOLT ASTM STANDARD WALL.
 4. CONFORMS TO JEDEC TO-94 OUTLINE.
 5. DIMENSIONS IN INCHES.
 6. APPROX. WEIGHT 3.5 OZS./100 GRAMS

TO-118

TO-200AB


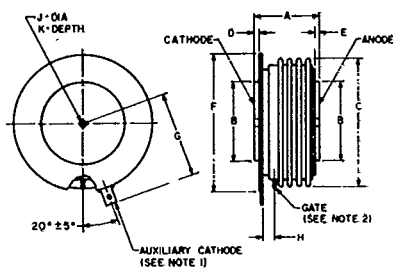
DIM	DECIMAL (INCHES)		METRIC (MM)	
	MIN	MAX	MIN	MAX
A	.525	.575	13.335	14.605
B	.746	.754	18.948	19.152
C	.030	.060	.762	1.524
D	.030	.060	.762	1.524
E	1.580	1.655	40.132	42.037
F	.135	.145	3.420	3.680
G	.068	.082	1.727	2.083
H	1.380	1.460	35.052	37.084
J	.155	.175	3.937	4.445
K	—	1.150	—	29.210

- NOTES:
 1. USES AMP #42801-2 FAST-ON OR EQUIVALENT
 2. USES AMP #60354-2 CONNECTOR OR EQUIVALENT
 3. APPROX WEIGHT 1.8 OZ / 50 GRAMS

TO-200AB-2


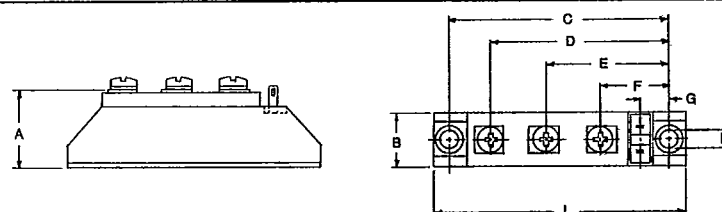
DIM	DECIMAL (INCHES)		METRIC (MM)	
	MIN	MAX	MIN	MAX
A	.560	.605	14.224	15.367
B	.985	.995	25.019	25.273
C	—	1.585	—	40.259
D	.040	—	1.016	—
E	.030	—	.762	—
F	1.600	1.650	40.640	41.910
G	—	1.120	—	28.448
H	.130	.170	3.302	4.318
J	.135	.145	3.429	3.683
K	.070	.100	1.778	2.540
L	—	.875	—	22.225

- NOTES:
 1. USES AMP #42801-2 FAST-ON OR EQUIVALENT
 2. USES AMP #60598-1 CONNECTOR OR EQUIVALENT
 3. UNLESS SPECIFIED ALL DEVICES WILL BE SHIPPED WITH 12" LEADS WITH RING TERMINALS

TO-200AC


DIM	DECIMAL (INCHES)		METRIC (MM)	
	MIN	MAX	MIN	MAX
A	1.000	1.065	25.400	27.051
B	1.336	1.350	33.934	34.290
C	—	2.100	—	53.340
D	.020	.105	.508	2.667
E	.030	.080	.762	2.032
F	2.246	2.251	57.040	57.170
G	1.399	1.409	35.530	35.780
H	.165	.185	4.190	4.690
J	.135	.145	3.420	3.680
K	.062	.072	1.570	1.820

- NOTES:
 1. USES AMP #42801-2 FAST-ON OR EQUIVALENT
 2. USES AMP #60598-1 CONNECTOR OR EQUIVALENT
 3. UNLESS SPECIFIED ALL DEVICES WILL BE SHIPPED WITH 12" LEADS WITH RING TERMINALS
 4. APPROX WEIGHT 8 OZ / 230 GRAMS

TO-240AA


DIM	DEC	MM	DIM	DEC	MM
A	1.181	30	F	.964	25
B	.787	20	G	.433	11
C	3.150	80	H	.252	6.4
D	2.559	65	I	3.622	92
E	1.772	45			