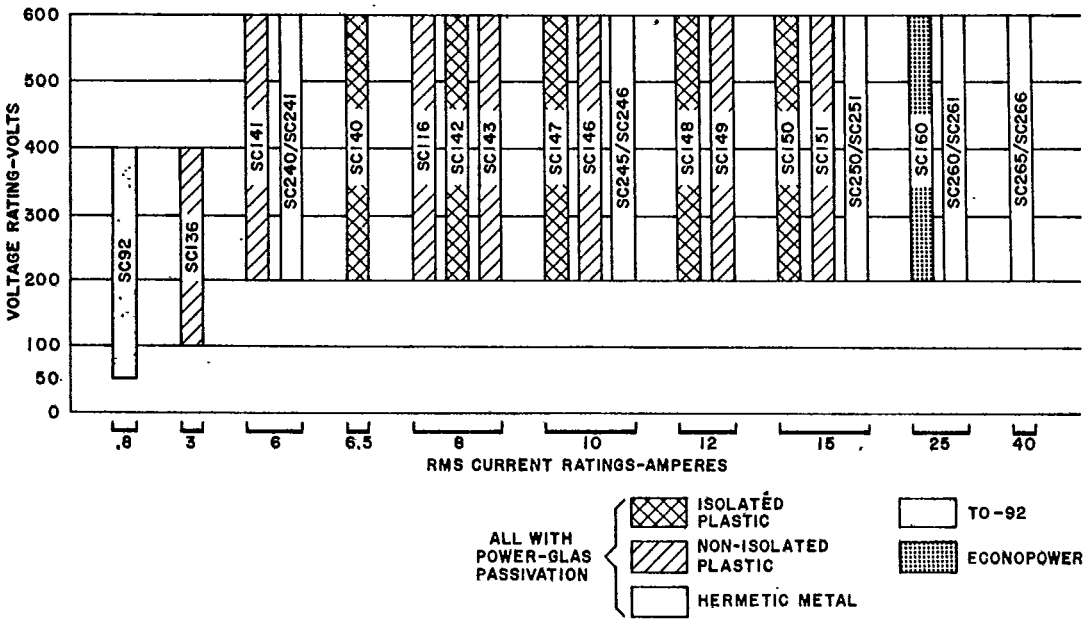
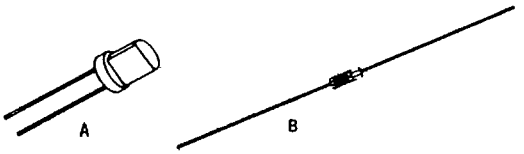
TRIAC SELECTOR GUIDE





TRIAC TRIGGERS

The ST2 (diac) is a silicon bi-directional diode which may be used for triggering triacs or SCR's. It has a three layer structure with negative resistance switching characteristics in both directions.

The ST4 is an asymmetrical AC trigger integrated circuit for use in triac phase control applications. This device reduces the snap-on effects that are present in conventional trigger circuits by eliminating control circuit hystersis. This performance is possible with a single RC time constant where as a symmetrical circuit of comparable performance would require at least three more passive components.

GE Type	V_{S2} Switching Voltage Min. (V)	V_{S2} Switching Voltage Max. (V)	V_{S1} Switching Voltage Min. (V)	V_{S1} Switching Voltage Max. (V)	I_{S2}, I_{S1} Switching Current Max. (μA)	Pulse Output Min. (V)	Package Outline No.
ST2	28[1]	36[1]	28[1]	36[1]	200	3.0	B.
ST4	7	9	14	18	80	3.5	A

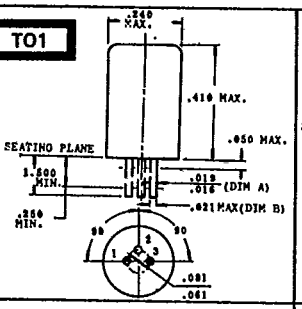
[1] For ST2, $V_{S2} = V_S \pm 10\%$

BIDIRECTIONAL TRIGGER DIODE (DIAC)

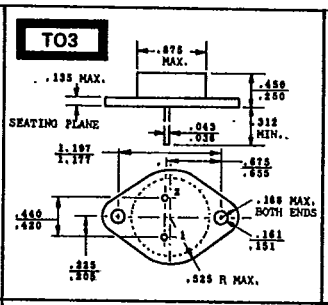
	$V_{(BO)+}$ & $V_{(BO)-}$ MIN VOLTS	$V_{(BO)+}$ & $V_{(BO)-}$ TYP VOLTS	$V_{(BO)+}$ & $V_{(BO)-}$ MAX VOLTS	I_{BO} MAX mA	$\Delta V \propto \Delta I$ MIN VOLTS	$\Delta V \propto \Delta I$ MIN mA	V_{SYM} MIN VOLTS	P_{AV} MAX mW
BTD032	28	32	36	1.0	6.0	10	5.0	150

case outline drawings

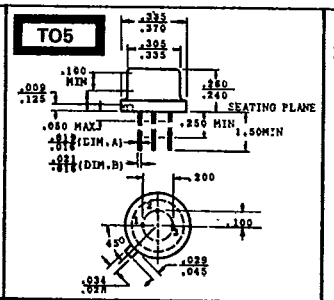
TO1



TO3



TO5



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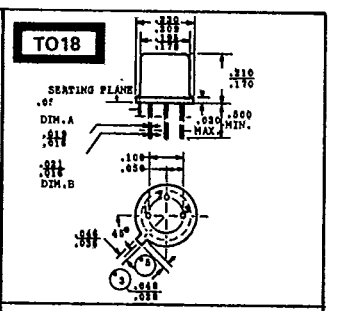
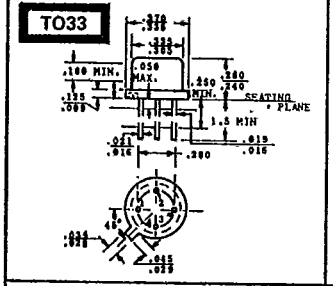


TO33



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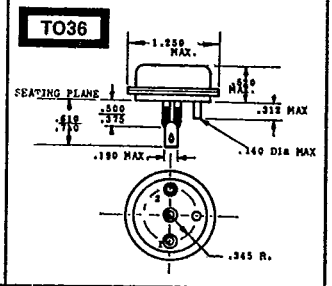

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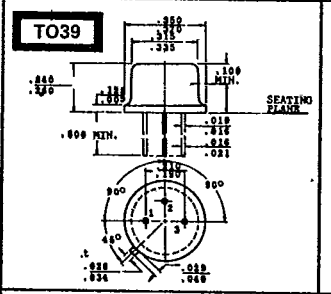
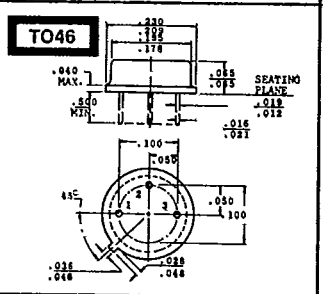
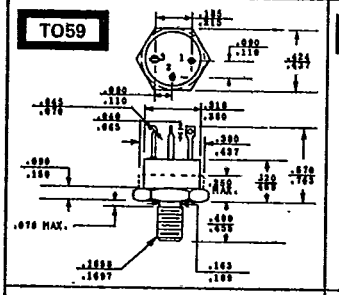


TO46



TO59



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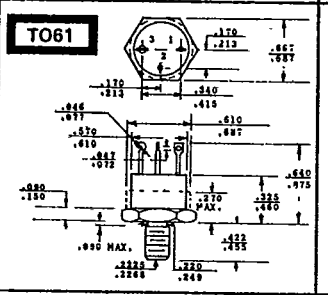

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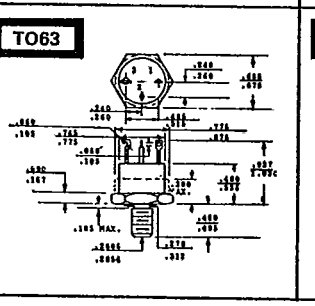
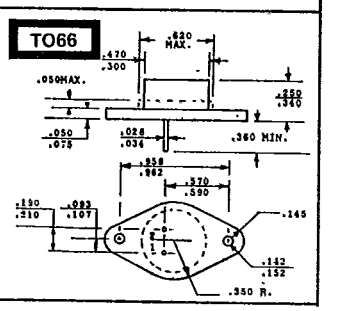
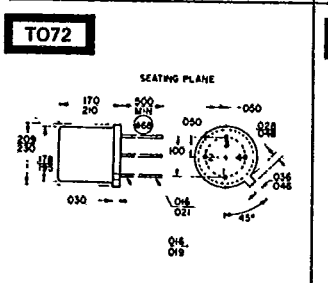


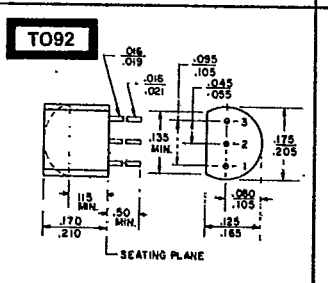
TO66



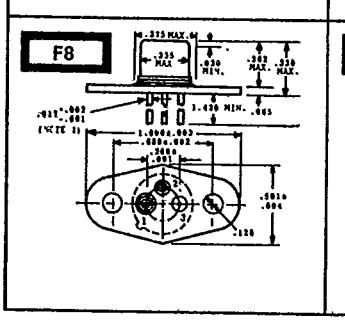
TO72



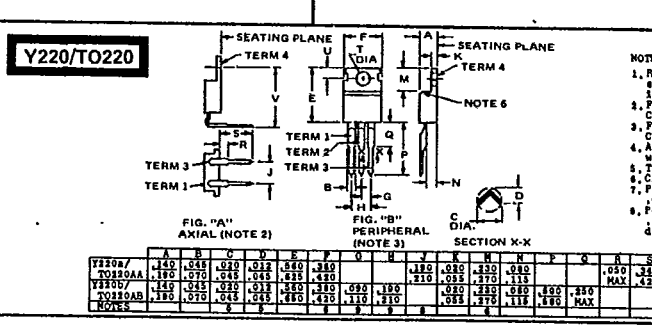
TO92



F8



Y220/TO220

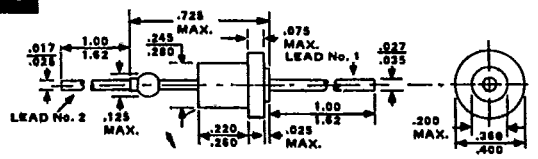


NOTES:
1. Refer to rules for dimensioning semiconductor product outlines included in Publication No. 76.
2. Figure "A" , Axial Terminal Configuration, applicable.
3. Figure "B" , Peripheral Terminal Configuration, applicable.
4. Alternate lead configurations allowed within C and D.
5. Tab contour optional within H and P.
6. Chamfer optional.
7. Position of lead to be measured .050 -.055 below seating plane.
8. Position of lead to be measured .250 -.255 from bottom of dimension E.

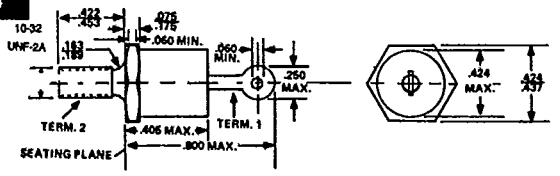
	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S	T	U	V	NOTES
Y220a/ TO220AA	.140 .190	.048 .070	.020 .045	.012 .045	.560 .625	.360 .420			.180 .210	.020 .055	.330 .370	.080 .115			.050 MAX	.340 .422	.139 .147	.100 .130	.580 .610	2
Y220b/ TO220AB	.140 .190	.045 .070	.020 .045	.012 .045	.560 .625	.360 .420	.090 .110	.180 .210		.020 .055	.330 .370	.080 .115	.400 .480	.250 MAX			.139 .161	.100 .135		3
NOTES																				

case outline drawings cont'd

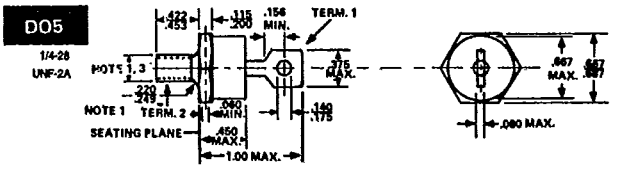
DO1-3



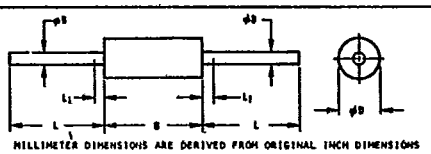
DO4



DO5



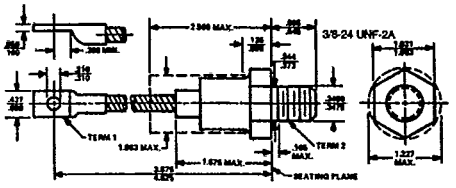
DO7



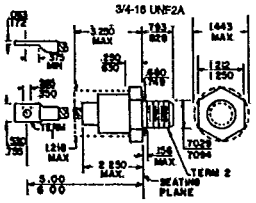
MILLIMETER DIMENSIONS ARE DERIVED FROM ORIGINAL INCH DIMENSIONS

SYMBOL	INCHES MIN.	INCHES MAX.	MILLIMETERS MIN.	MILLIMETERS MAX.	NOTES
ϕB	.018	.022	0.458	0.558	-
ϕD	.085	.107	2.16	2.71	1
G	.230	.300	5.85	7.62	1
L	1.000	-	25.40	-	-
L_1	-	.050	-	1.27	2

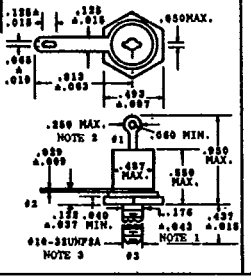
DO8



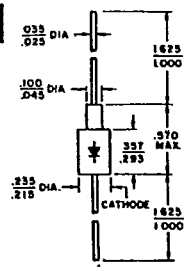
DO9



DO10



DO13



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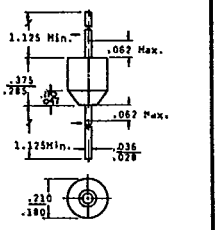
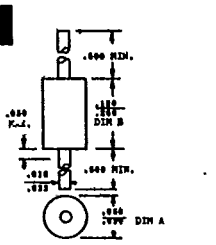
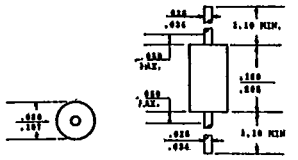


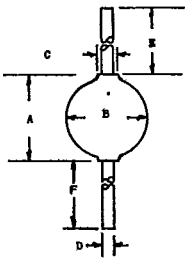
DO35



DO41

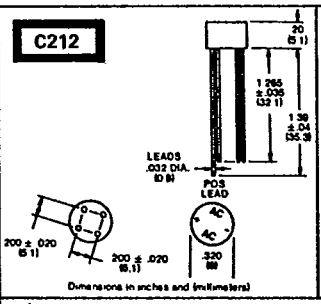


A249

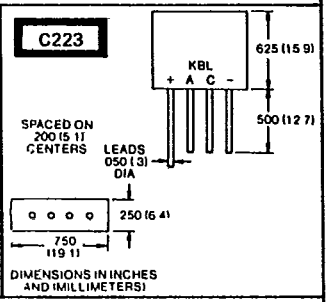


	A	B	C	D	E	F
A249	.310 .360	.330 MAX	.093 MIN	.093 MAX	1.000 MIN	1.000 MIN
A249b	.196 MAX	.197 MAX		.035 MAX	.894 MIN	.894 MIN
A249b	.175 MAX	.130 MAX		.035 .032	1.13	
A249c	.196 MAX	.197 MAX		.035 .032	1.14 MIN	1.14 MIN

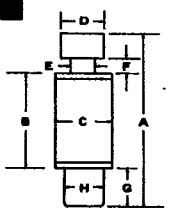
C212



C223



F22



	A	B	C	D	E	F	G	H
F22	.875 1.03	.600 .650	.340 .360	.340 .360	.100 .100	.053 .073	.350 .350	.340 .360
F22a	1.48	.969	.400 MAX	.350	.120	.063	.350	.350
F22b	1.93	1.45	.400 MAX	.350	.120	.063	.350	.350
F22c	2.40	1.90	.400 MAX	.350	.120	.063	.350	.350
F22d	2.87	2.37	.400 MAX	.350	.120	.063	.350	.350
F22e	3.34	2.84	.400 MAX	.350	.120	.063	.350	.350
F22f	3.81	3.31	.400 MAX	.350	.120	.063	.350	.350
F22g h	1.13	.800	.400 MAX	.350	.120	.063	.350	.350