



TEST	SYMBOL	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
Gate Trigger Current	$I_{GT}$	—	100 150 50 250	150 200 — —	mAdc	$T_J = +25^\circ\text{C}$ $T_J = 0^\circ\text{C}$ $T_J = +125^\circ\text{C}$ $T_J = -40^\circ\text{C}$ } $V_D = 12\text{ Vdc}$ , $R_L = 50\text{ ohms}$
Gate Trigger Voltage	$V_{GT}$	— 0.15	—	3.5	Vdc	$T_J = -40^\circ\text{C to } +125^\circ\text{C}$ $T_J = +125^\circ\text{C}$ } $V_D = 6\text{ Vdc}$ , $R_L = 50\text{ ohms}$
Peak On-Voltage	$V_{TM}$			1.21	V	$T_J = +25^\circ\text{C}$ , $I_{TM} = 500\text{ A peak}$
Holding Current	$I_H$		25	100	mAdc	$T_J = +25^\circ\text{C}$ , Anode Supply = 22 Vdc
Turn-On Time (Delay Time + Rise Time)	$t_d + t_r$	—	10	—	$\mu\text{sec}$	$T_J = +25^\circ\text{C}$ , $I_F = 5\text{ Adc}$ , $V_{DRM} = 50\text{ Volts}$ Gate Supply: 10 volts open circuit, 10 ohm, 0.1 $\mu\text{sec}$ maximum rise time. <sup>1</sup>
Circuit Commutated Turn-Off Time	$t_q$	—	250	—	$\mu\text{sec}$	$T_J = +125^\circ\text{C}$ , $I_{TM} = 250\text{ A}$ , $V_R = 50\text{ V max.}$ $V_{DRM}$ (reapplied) = Rated. Rate of rise of reapplied forward blocking voltage = 20 volts/ $\mu\text{sec}$ linear.
Effective Thermal Resistance DC	$R_{\theta JC}$			.118	$^\circ\text{C/Watt}$	Junction to Case, Maximum. DC = .118, $1\phi = .13$ , $3\phi = .138$ , $6\phi = .158$
Linear Rate of Rise of Forward Blocking Voltage	$dv/dt$	100	—	—	V/ $\mu\text{sec}$	$T_J = +125^\circ\text{C}$ . Gate open circuited. $V_{DRM} = 80\%$ Rated.
Max. Allowable Rise of Forward Current (Sinusoidal Waveform)	$di/dt$	—	—	50	A/ $\mu\text{sec}$	$T_J = +125^\circ\text{C}$ , Rep rate = 60 Hz. max. $I_{TM} = 600\text{ A peak}$ (1000 Volts turned on) <sup>2</sup>

(1) Selected Turn-On Times are available. Consult factory.

(2)  $di/dt$  rating is a function of the voltage being turned on, the frequency, and the temperature (rating decreases as these parameters are increased). For pulse operation at a repetitive rate of 3 p.p.s. or lower, this rating is approximately an order of magnitude higher and can even be negotiated for 1000 amps/ $\mu\text{ sec}$ . A shunt RC network will also influence the result. A proved acceptable condition, guaranteed by factory test on all units, follows:

For  $V = 0.8 V_{DRM}$  being turned on,

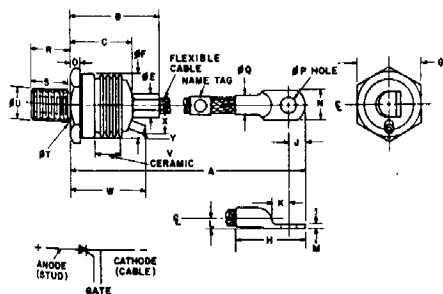
$L = 22\ \mu\text{H}$  (in series with SCR)

$T_J = 125^\circ\text{C}$

$f = 60\text{ Hz.}$

$R = 20\ \Omega$  } Shunt  
 $C = 0.5\ \mu\text{F}$  } RC  
Network

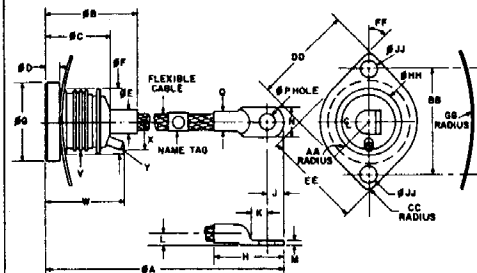
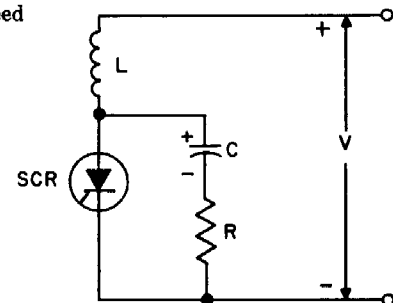
$I_{TM} = 600\text{ amps. peak}$



C290

SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN	MAX	MIN	MAX	
A	7.500	8.000	190.80	203.20	
AA	7.625	8.125	193.88	206.38	
B	2.375	2.500	60.32	63.50	
BB	1.825	1.925	46.28	49.45	
C	1.425	1.750	36.18	44.45	
CC	1.350	1.500	34.29	38.13	
D	2.35	2.68	59.82	68.08	
DD	2.35	2.68	59.82	68.08	
EE	2.35	2.68	59.82	68.08	
EE	2.35	2.68	59.82	68.08	
FF	1.025	1.125	26.16	28.58	
FF	1.025	1.125	26.16	28.58	
GG	1.608	1.840	40.77	46.68	
GG	1.608	1.840	40.77	46.68	
HH	1.825	2.000	46.28	50.80	
J	3.75	4.38	95.2	111.2	
K	3.75	4.38	95.2	111.2	
L	2.50	2.97	63.5	75.4	
M	0.94	1.25	23.9	31.8	
N	0.766	0.766	19.46	19.46	
PP	3.91	4.22	99.3	107.2	
PP	3.91	4.22	99.3	107.2	
RR	1.037	1.067	26.34	27.01	
S	0.912	1.009	23.16	25.63	
ST	0.860	0.870	21.76	22.12	
SU					5
V		2.000		50.80	1
X		0.750		19.05	
Y					4
AA	1.178	1.198	29.92	30.43	3
BB	2.484	2.516	63.09	63.91	3
CC	1.72	2.03	43.7	51.6	3
DD	2.355	2.355	59.82	60.83	3
EE	2.355	2.355	59.82	60.83	3
FF					2,3
GG	5.500	6.500	139.70	165.10	3
HH	1.610	1.830	40.89	46.40	3
JJ	3.70	3.80	94.0	96.8	3

NOTES  
 1. 1.000" (25.40mm) MIN. INSULATION CREEP.  
 2. 45° MIN. 45° MAX.  
 3. DIMENSIONS OF CLAMP BEFORE FORMING TO 6.000" (152.40mm) RADIUS.  
 4. COAX RECEPTACLE WILL MATE WITH AMP INC. COAXICON PLUG TNC TYPE (E.G. #92036)  
 5. 3/4"-16 UNF-2A



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