



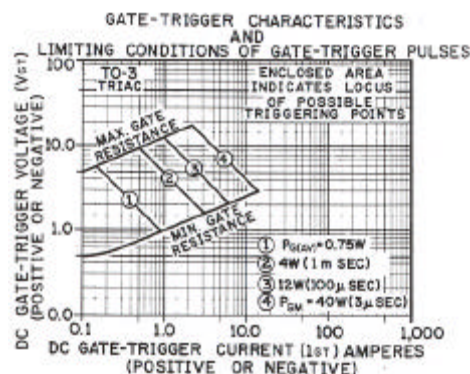
HUTSON INDUSTRIES, INC.

TO-239 TRIAC

MAXIMUM RATINGS	SYMBOL	VDRM	DEVICE NUMBERS		UNITS
Repetitive Peak Off-State Voltage (1) Gate open, and Tj = 110° C	VDRM	200 400 600	HSC160B HSC160D HSC160M	HSC165B HSC165D HSC165M	VOLT
RMS On-State Current at Tc = 80 ° C and Conduction Angle of 360°	It(RMS)		25.0	40.0	AMP
Peak Surge (Non-Repetitive) On-State Current, One-Cycle, at 50Hz or 60 Hz	ITSM		250	400	AMP
Peak Gate-Trigger Current for 3μsec. Max.	IGTM		4	4	AMP
Peak Gate-Power Dissipation at IGT ≤ IGTM	PGM		40	40	WATT
Average Gate-Power Dissipation	PG(AV)		0.8	0.8	WATT
Storage Temperature Range	Tstg		-40 to +150		°C
Operating Temperature Range, Tj	Toper		-40 to +110		°C
ELECTRICAL CHARACTERISTICS At Specified Case Temperatures					
Peak Off-State Current, (1) Gate Open TC = 110° C VDRM = Max. Rating	IDRM		1	2	mA MAX.
Maximum On-State Voltage, (1) at Tc=25°C and IT = Rated Amps	VTM		1.8	2	VOLT MAX
DC Holding Current, (1) Gate Open and TC = 25°C	IHO		80	100	mA MAX.
Critical Rate-Of-Rise of Off-State Voltage, (1) for VD = VDRM Gate Open, TC - 110°C	Critical dv/dt		200	200	V/μsec.
Critical Rate-Of-Rise Of Communication Voltage, (1) at TC = 80° C, Gate Unenergized, VD = VDRM, IT = IT (RMS)	Commutating dv/dt		5	5	V/μsec.
DC Gate - Trigger Current for VD = 12VDC, RL = 60 OHM and at TC = 25° C (T2 + GATE + T2 - GATE-) Quads 1 & 3 (T2 + GATE - T2 - GATE +) Quads 2 & 4	IGT		100 I, III 150 II, IV	100 I, III 150 II, IV	mA MAX.
DC Gate-Trigger Voltage for VD = 12VDC, RL = 30 OHM and at TC = 25°C	VGT		2.5	2.5	VOLT MAX
Gate-Controlled Turn-on Time for VD=VDRM, IGT = 200mA tR =0.1 μsec., IT = 10A (Peak) and TC = 25°C	Tgt		3	3	μsec.
Thermal Resistance, Junction-to-Case	RqJ-C		1.3	1.3	°C/WATT TYP

Notes:

- (1) All values apply in either direction.
- (2) All Hutson Isolated TO-239 TRIACS are UL Recognized. UL number E95589(N).

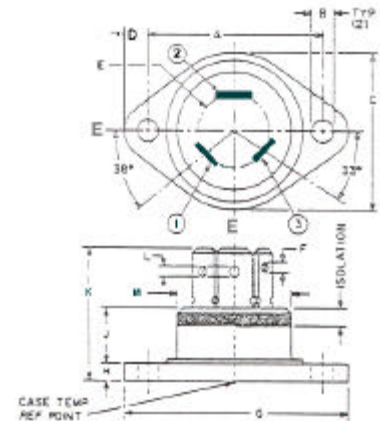




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TERMINAL DESIGNATION				
PRODUCT		TERMINAL 1	TERMINAL2	TERMINAL3
TRIAC		MT1	MT2	GATE-TRIGGER
TERMINAL SPECIFICATIONS				
TERMINAL		ACCEPTS FAST-ON CONNECTOR	WIDTH	THICKNESS
1 & 2		0.250 SER.	N	P
3		0.187 SER.	Q	R
SYM.	INCHES		METRIC (MM)	
A	1.182	1.192	30.02	39.8
B	0.150	0.161	3.81	4.09
C	0.975	1.025	24.76	26.04
D	0.175 REF.		4.46 REF.	
E*	0.480	0.5	12.19	12.7
F	0.050 REF.		1.27 REF.	
G	1.507	1.567	38.27	39.8
H	0.119	0.131	3.02	3.33
J	-	0.4	-	10.16
K	0.900	0.96	22.86	24.36
L	0.070 REF.		1.77 REF.	
M	0.778	0.81	19.76	20.57
N	0.247	2.53	6.27	6.43
P	0.031	0.033	0.78	0.84
Q	0.184	0.19	4.67	4.83
R	0.031	0.033	0.78	0.84



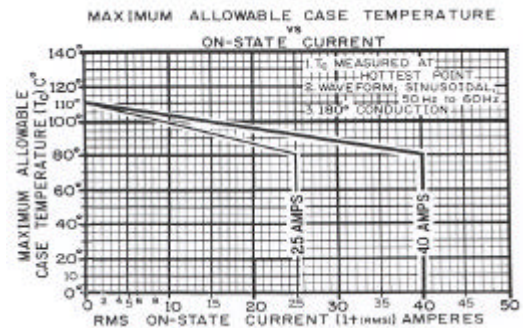
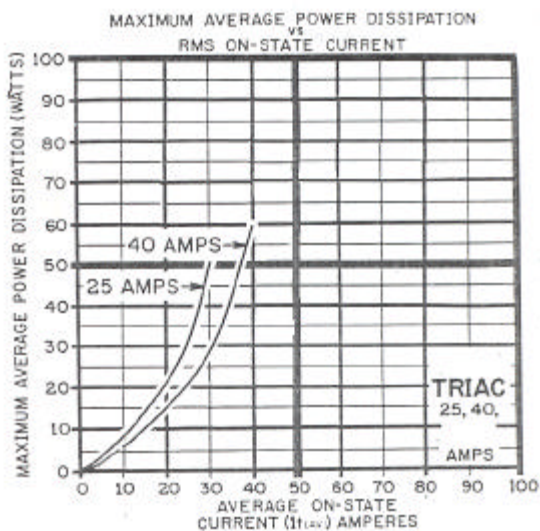
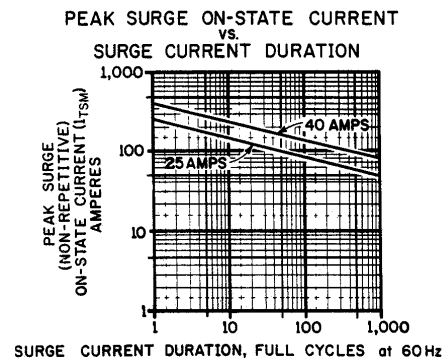
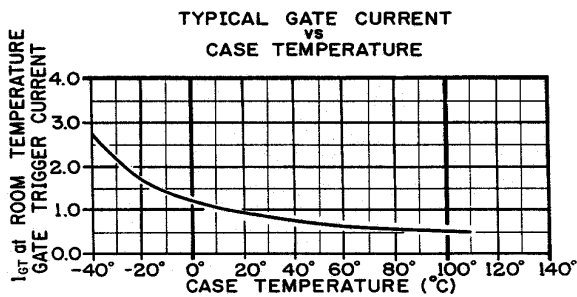
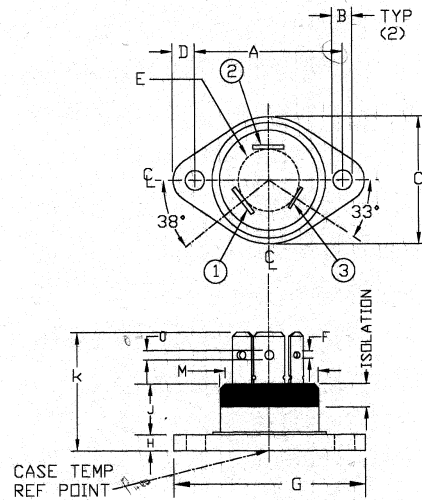
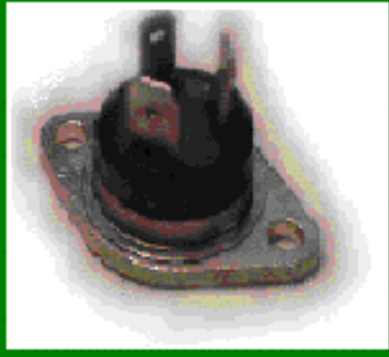
NOTES:

1. Terminal centers are located on "E" dia.

HUTSON INDUSTRIES, INC.

TO-239 TRIAC

25, 40 AMP TO-239 TRIAC



CURRENT WAVEFORM:

SINUSOIDALM, 60Hz

RESISTIVE LOAD

$I_{T(RMS)} = \text{RATED AMPS at } 80^{\circ}\text{C}$

GATE CONTROL MAY BE LOST DURING AND AFTER SURGE.
GATE CONTROL WILL BE REGAINED AFTER T_J RETURNS TO STEADY-STATE VALUE.