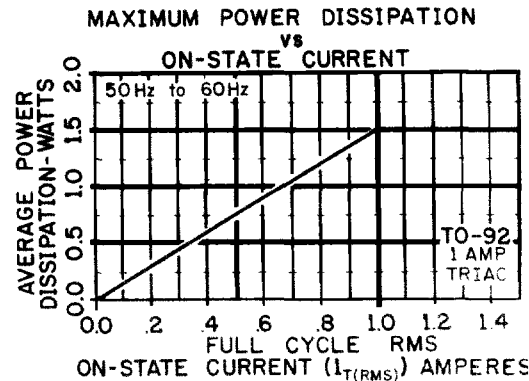


TO-92 SENSITIVE GATE TRIAC

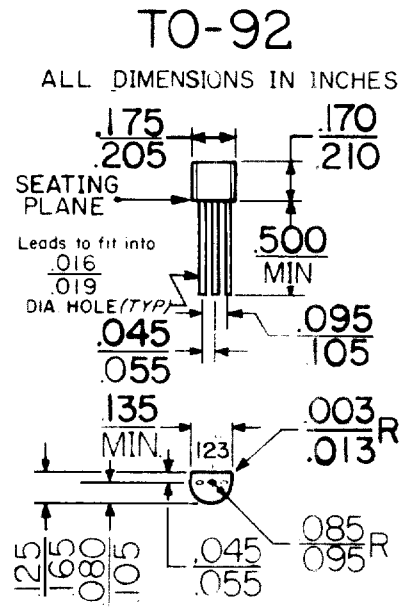
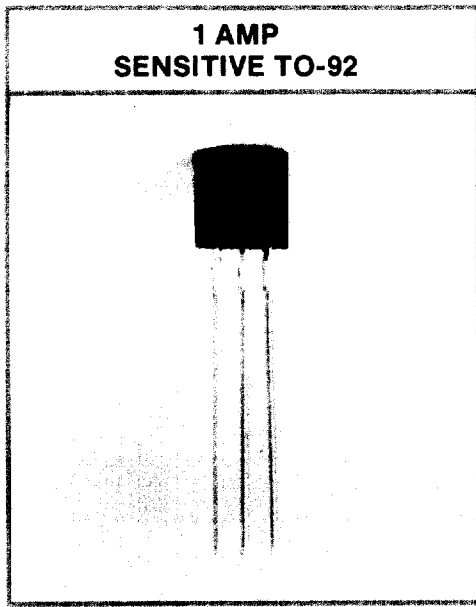
MAXIMUM RATINGS	SYMBOL	V_{DRM}	DEVICE PARAMETERS				UNITS
Repetitive Peak Off-State Voltage (1) Gate Open, and $T_J = 110^\circ\text{C}$	V_{DRM}	200 400 600	TBS TDS TMS	TBD TDD TMD	TBG TDG TMG	TBH TDH TMH	VOLT
RMS On-State Current at $T_C = 50^\circ\text{C}$ and Conduction Angle of 360°	$I_{T(RMS)}$		1.0	1.0	1.0	1.0	AMP
Peak Surge (Non-Repetitive) On-State Current, One-Cycle, at 50Hz or 60Hz	I_{TSM}		20	20	20	20	AMP
Peak Gate-Trigger Current for $3\mu\text{sec}$. Max.	I_{GTM}		1	1	1	1	AMP
Peak Gate-Power Dissipation at $I_{GT} \leq I_{GTM}$	P_{GM}		10	10	10	10	WATT
Average Gate-Power Dissipation	$P_{G(AV)}$		0.2	0.2	0.2	0.2	WATT
Storage Temperature Range	T_{stg}		-40 to +150				$^\circ\text{C}$
Operating Temperature Range, T_J	T_{oper}		-40 to +110				$^\circ\text{C}$
ELECTRICAL CHARACTERISTICS At Specified Case Temperature							
Peak Off-State Current, (1) Gate Open $T_C = 110^\circ\text{C}$ $V_{DRM} = \text{Max. Rating}$	I_{DRM}		0.1	0.1	0.1	0.1	mA MAX
Maximum On-State Voltage, (1) at $T_C = 25^\circ\text{C}$ and $I_T = \text{Rated Amps}$	V_{TM}		1.6	1.6	1.6	1.6	VOLT MAX
DC Holding Current, (1) Gate Open and $T_C = 25^\circ\text{C}$	I_{HO}		5	10	15	25	mA MAX
Critical Rate-Of-Rise of Off-State Voltage, (1) for $V_D = V_{DRM}$ Gate Open, $T_C = 110^\circ\text{C}$	Critical dv/dt:		10	10	20	25	V/ μsec .
Critical Rate-Of-Rise of Commutation Voltage, (1) at $T_C = 80^\circ\text{C}$, Gate Unenergized, $V_D = V_{DRM}$ $I_T = I_{T(RMS)}$	Commutating dv/dt:		1	1	1	1	V/ μsec .
DC Gate-Trigger Current for $V_D = 12\text{VDC}$, $R_L = 60\Omega$ and at $T_C = 25^\circ\text{C}$ (T_2^+ Gate +, T_2^- Gate-) Quads I and III (T_2^+ Gate -, T_2^- Gate+) Quads II and IV (2)	I_{GT}		3	5	10	25	mA MAX
DC Gate-Trigger Voltage for $V_D = 12\text{VDC}$, $R_L = 60\Omega$ and at $T_C = 25^\circ\text{C}$	V_{GT}		2.0	2.0	2.0	2.0	VOLT MAX
Gate-Controlled Turn-on Time for $V_D = V_{DRM}$, $I_{GT} = 80\text{mA}$ $t_R = 0.1 \mu\text{sec}$. $I_T = 1\text{A}$ (Peak) and $T_C = 25^\circ\text{C}$	T_{gt}		3	3	3	3	μsec .
Thermal Resistance, Junction-to-Case	$R_{\theta J-C}$		45	45	45	45	$^\circ\text{C/WATT}$ TYP
Thermal Resistance, Junction-to-Ambient	$R_{\theta J-A}$		100	100	100	100	$^\circ\text{C/WATT}$ TYP

*Notes:

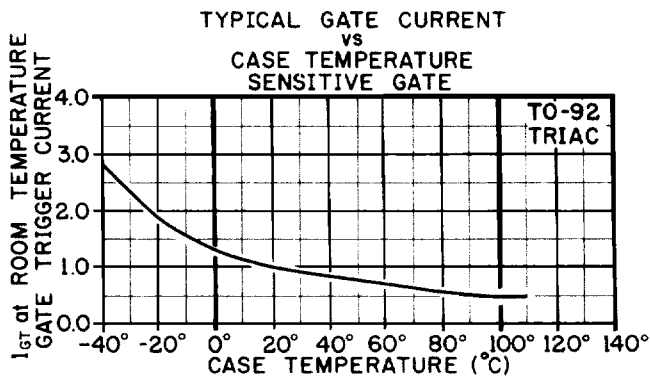
- (1) All Values Apply in either direction
- (2) Quadrant II & IV gating may be deleted from any Hutson sensitive gate triac as many applications do not require this capability. To order those devices suffix part number with "A".



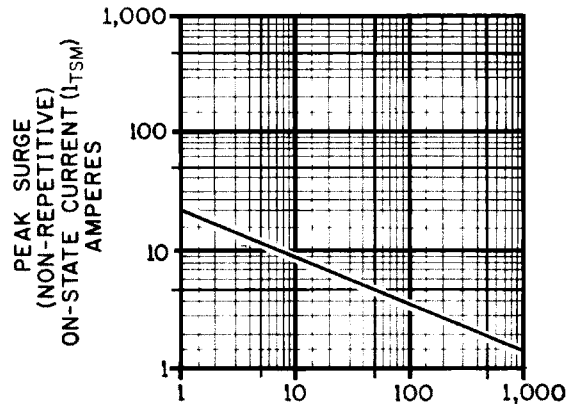
HUTSON INDUSTRIES TRIAC'S



Pin 1. Main Terminal 1
Pin 2. Gate
Pin 3. Main Terminal 2



PEAK SURGE ON-STATE CURRENT vs SURGE CURRENT DURATION



SURGE CURRENT DURATION, FULL CYCLES at 60Hz

CURRENT WAVEFORM:
SINUSOIDAL, 60 Hz
RESISTIVE LOAD
 $I_{T(RMS)} = 1$ AMPS at 50Tc
GATE CONTROL MAY BE LOST DURING AND AFTER SURGE.
GATE CONTROL WILL BE REGAINED AFTER T_j RETURNS TO STEADY-STATE VALUE.

**TO-92
TRIAC**

