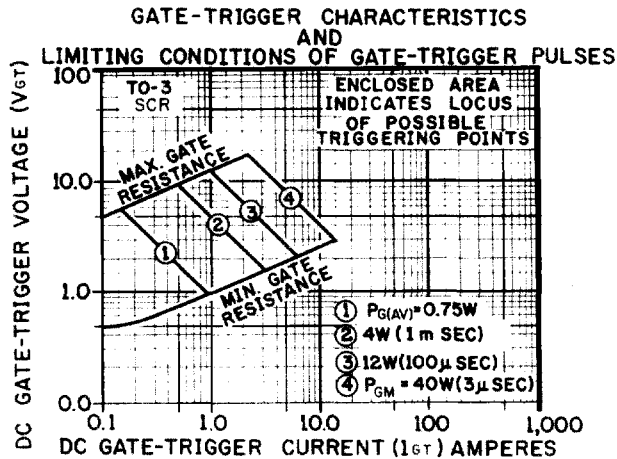


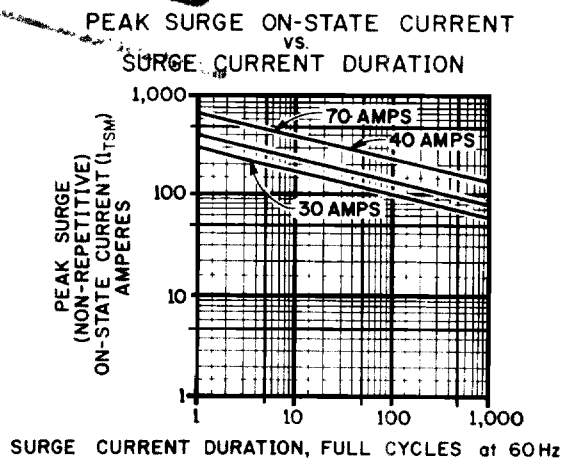
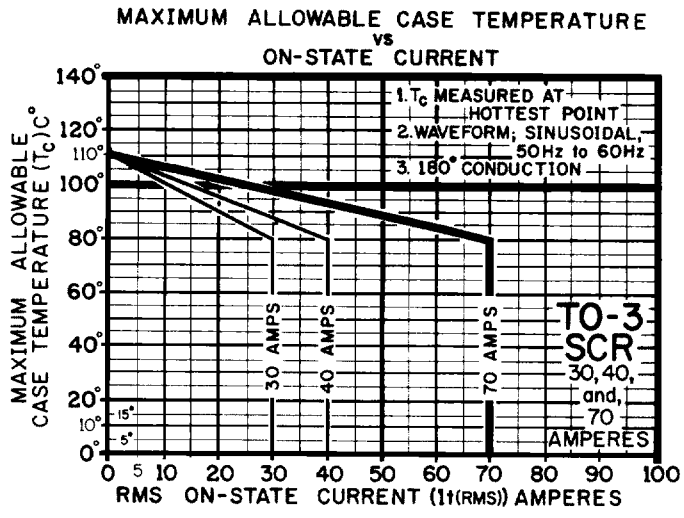
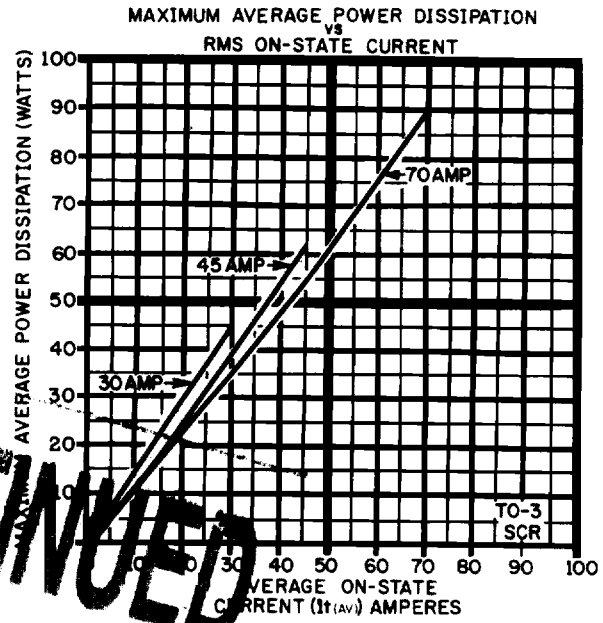
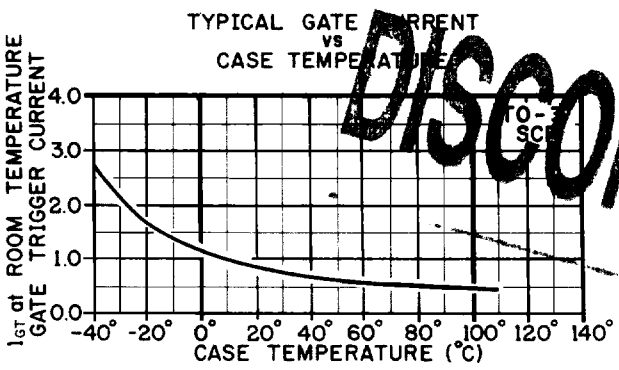
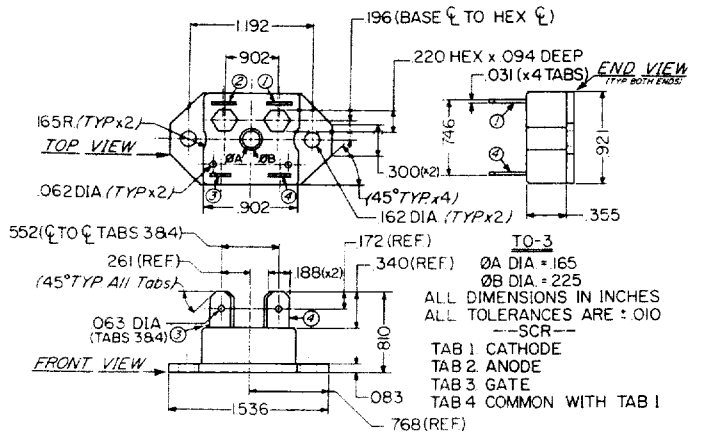
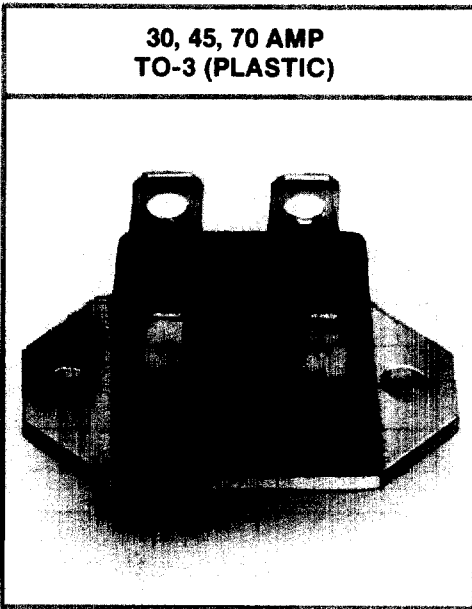
# TO-3 (PLASTIC) SCR

MAXIMUM RATINGS	SYMBOL	V	DEVICE NUMBERS			UNITS
Repetitive Peak Off-State Voltage and Repetitive Peak Reverse Voltage Gate Open, and $T_J = 110^\circ\text{C}$	$V_{DRM}$ &	50	3SF30	3SF45	3SF70	VOLT
		100	3SA30	3SA45	3SA70	
	$V_{RRM}$	200	3SB30	3SB45	3SB70	
		400	3SD30	3SD45	3SD70	
		600	3SM30	3SM45	3SM70	
RMS On-State Current at $T_C = 80^\circ\text{C}$ and Conduction Angle of $180^\circ$	$I_T(\text{RMS})$		30.0	45.0	70.0	AMP
Peak Surge (Non-Repetitive) On-State Current, One-Cycle, at 50Hz or 60Hz	$I_T^{\text{SM}}$		300	450	700	AMP
Peak Gate-Trigger Current for $3\mu\text{sec}$ . Max.	$I_{GT}^{\text{M}}$		2	2	2	AMP
Peak Gate-Power Dissipation at $I_{GT} \leq I_{GT}^{\text{M}}$	$P_{GM}$		20	20	20	WATT
Average Gate-Power Dissipation	$P_{G(\text{AV})}$		0.5	0.5	0.5	WATT
Storage Temperature Range	$T_{\text{stg}}$		-40 to +150			$^\circ\text{C}$
Operating Temperature Range, $T_J$	$T_{\text{oper}}$		-40 to +110			$^\circ\text{C}$
<b>ELECTRICAL CHARACTERISTICS</b> At Specified Case Temperature						
Peak Off-State Current, Gate Open $T_C = 110^\circ\text{C}$ $V_{DRM}$ & $V_{RRM} = \text{Max. Rating}$	$I_{DRM}$ & $I_{RRM}$		1.0	2.0	2.0	mA MAX
Maximum On-State Voltage, (Peak) at $T_C = 25^\circ\text{C}$ and $I_T = \text{Rated Amps}$	$V_{TM}$		1.5	1.6	1.75	VOLT MAX
DC Holding Current, Gate Open and $T_C = 25^\circ\text{C}$	$I_{HC}$		50	50	50	mA MAX
Critical Rate-Of-Rise of Off-State Voltage, Gate Open, $T_C = 110^\circ\text{C}$	Critical $dv/dt$		200	200	200	V/ $\mu\text{sec}$ .
DC Gate-Trigger Current for Anode Voltage = 12VDC, $R_L = 60\Omega$ and at $T_C = 25^\circ\text{C}$	$I_{GT}$		25	25	25	mA MAX
DC Gate-Trigger Voltage for Anode Voltage = 12VDC, $R_L = 60\Omega$ and at $T_C = 25^\circ\text{C}$	$V_{GT}$		2.0	2.0	2.0	VOLT MAX
Gate-Controlled Turn-on Time for $t_D + t_R$ $I_{GT} = 150\text{mA}$ and $T_C = 25^\circ\text{C}$	$T_{gt}$		2.5	2.5	2.5	$\mu\text{sec}$ .
Thermal Resistance, Junction-to-Case	$R_{\theta J-C}$		1.3	0.9	0.85	$^\circ\text{C}/\text{WATT}$ TYP

DISCONTINUED



# HUTSON INDUSTRIES SCR'S



CURRENT WAVEFORM: SINUSOIDAL, 60Hz  
 RESISTIVE LOAD  
 I<sub>T(RMS)</sub> = RATED AMPS at 80° T<sub>C</sub>  
 GATE CONTROL MAY BE LOST DURING AND AFTER SURGE.  
 GATE CONTROL WILL BE REGAINED AFTER T<sub>J</sub> RETURNS TO STEADY-STATE VALUE.

**TO-3  
SCR  
30, 40,  
and,  
70  
AMPERES**

**DISCONTINUED**