

HUTSON INDUSTRIES, INC.

TO-220 ELECTRICALLY ISOLATED (ISOTAB*) SCR

MAXIMUM RATINGS	SYMBOL	VDRM	DEVICE NUMBERS					UNITS
REPETITIVE PEAK OFF-STATE VOLTAGE REPETITIVE PEAK REVERSE VOLTAGE GATE OPEN, AND $T_J = 110^\circ\text{C}$	VDRM & VRRM	50 100 200 400 600	IS08S IS18S IS28S IS48S IS68S	IS08 IS18 IS28 IS48 IS68	IS010 IS110 IS210 IS410 IS610	IS012 IS112 IS212 IS412 IS612	IS020 IS120 IS220 IS420 IS620	VOLT
RMS ON-STATE CURRENT AT $T_C = 80^\circ\text{C}$ AND CONDUCTION ANGLE OF 180°	IT(RMS)		8.0	8.0	10.0	12.0	20.0	AMP
PEAK SURGE (NON-REPETITIVE) ON-STATE CURRENT, ONE-CYCLE, AT 50HZ OR 60HZ	ITSM		80	80	100	120	200	AMP
PEAK GATE - TRIGGER CURRENT FOR $3\mu\text{SEC. MAX.}$	IGTM		1	1	1	1	1	AMP
PEAK GATE-POWER DISSIPATION AT IGT IGT M	PGM		16	16	16	16	16	WATT
AVERAGE GATE - POWER DISSIPATION	PG(AV)		0.5	0.5	0.5	0.5	0.5	WATT
STORAGE TEMPERATURE RANGE	TSTG		-40 TO +150					$^\circ\text{C}$
OPERATING TEMPERATURE RANGE, T_J	TOPER		-40 TO +110					$^\circ\text{C}$
ELECTRICAL CHARACTERISTICS AT SPECIFIED CASE TEMPERATURE								
PEAK OFF - STATE CURRENT GATE OPEN $T_C = 110^\circ\text{C}$ VDRM & VRRM = MAX. RATING	IDRM & IRRM		(1) 0.1	0.5	0.5	0.5	0.5	MA MAX.
MAXIMUM ON - STATE VOLTAGE, (PEAK) AT $T_C = 25^\circ\text{C}$ AND $I_T = \text{RATED AMPS}$	VTM		2.0	2.0	1.8	1.65	1.5	VOLT MAX.
DC HOLDING CURRENT, GATE OPEN AND $T_C = 25^\circ\text{C}$	IHO		(1) 3	30	30	30	30	MA MAX.
CRITICAL RATE-OF-RISE OF OFF-STATE VOLTAGE, GATE OPEN, $T_C = 110^\circ\text{C}$	CRITICAL dv/dt		(1) 8	200	200	200	200	V/ $\mu\text{SEC.}$
DC GATE - TRIGGER CURRENT FOR ANODE VOLTAGE = 12VDC, $R_L = 60\Omega$ AND AT $T_C = 25^\circ\text{C}$	IGT		500 μA	25	25	25	25	MA MAX.
DC GATE-TRIGGER VOLTAGE FOR ANODE VOLTAGE = 12VDC, $R_L = 60\Omega$ AND AT $T_C = 25^\circ\text{C}$	VGT		0.8	1.5	1.5	1.5	1.5	VOLT MAX.
GATE CONTROLLED TURN-ON TIME FOR $T_D + T_R$, IGT = 150 MA AND $T_C = 25^\circ\text{C}$	TGT		2.5	2.5	2.5	2.5	2.5	$\mu\text{SEC.}$
THERMAL RESISTANCE, JUNCTION-TO-CASE	$R_{\theta\text{-C}}$		3	2.5	2.5	2.5	2.2	$^\circ\text{C} / \text{WATT}$ TYP

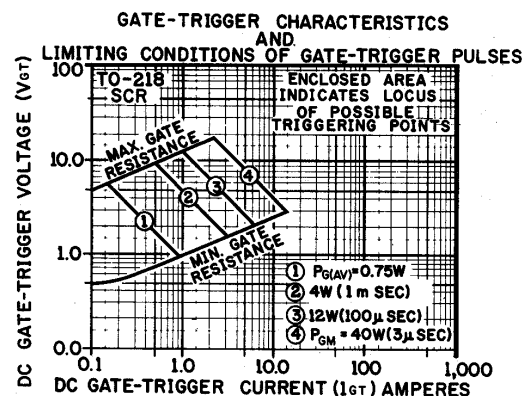
*Trademark of Hutson Industries, Inc.

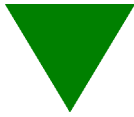
NOTE:

All Hutson Isolated TO-220 SCR's are UL Recognized.

UL number E95589 (N)

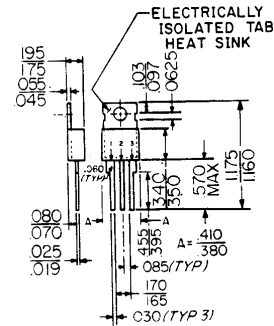
(1) $R_G - K = 1\text{K}\Omega$





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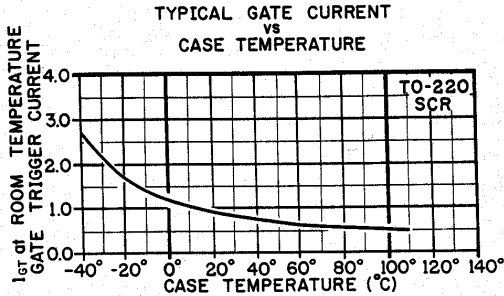
TO-220

ELECTRICALLY ISOLATED TAB PACKAGE
ALL DIMENSIONS IN INCHES

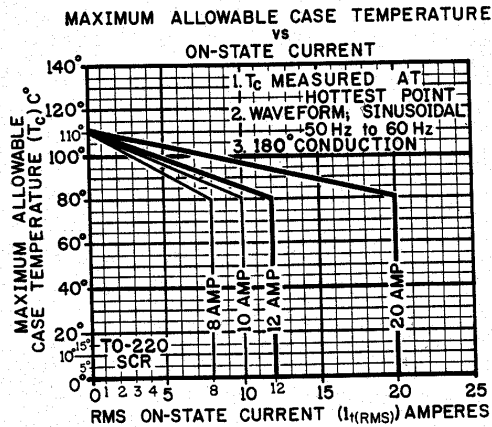
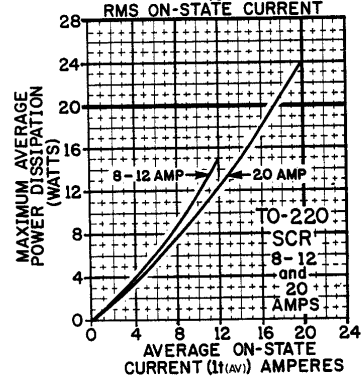
INTERNAL CONNECTIONS

---ISOLATED SCR---

1. Cathode
2. Anode
3. Gate



**MAXIMUM AVERAGE POWER DISSIPATION
vs
RMS ON-STATE CURRENT**



**PEAK SURGE ON-STATE CURRENT
vs.
SURGE CURRENT DURATION**

