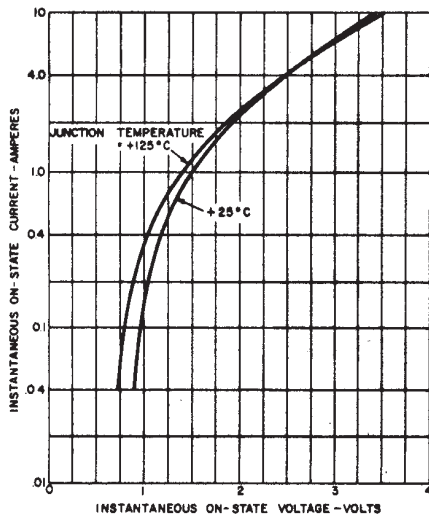


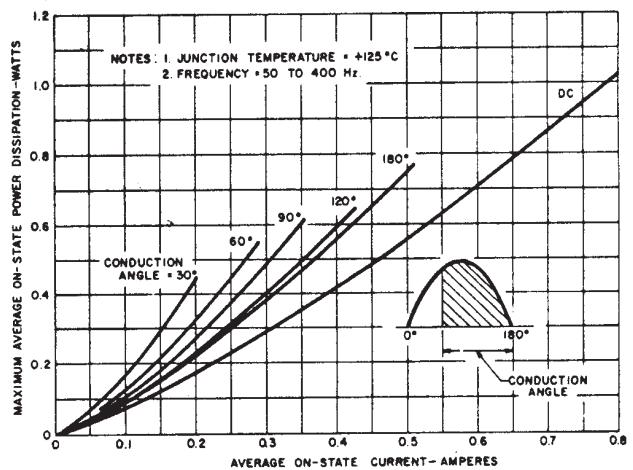
CHARACTERISTICS

C103

Test	Symbol	Min.	Typ.	Max.	Units	Test Conditions
Peak Reverse and Off-State Current (All types)	I_{RRM} OR I_{DRM}	—	—	1.0	μA	$T_C = +25^\circ C, R_{GK} = 1000$ ohms $V_{RRM} = V_{DRM} =$ Rated Value.
		—	—	50		$T_C = +125^\circ C, R_{GK} = 1000$ ohms $V_{RRM} = V_{DRM} =$ Rated Value.
DC Gate Trigger Current	I_{GT}	—	—	200	μA_{dc}	$T_C = +25^\circ C, V_D = 6V_{dc},$ $R_L = 100$ ohms.
		—	—	500		$T_C = -65^\circ C, V_D = 6V_{dc},$ $R_L = 100$ ohms.
DC Gate Trigger Voltage	V_{GT}	—	—	0.8	Vdc	$T_C = +25^\circ C, V_D = 6V_{dc},$ $R_L = 100$ ohms.
		—	—	1.0		$T_C = -65^\circ C, V_D = 6V_{dc},$ $R_L = 100$ ohms.
		0.1	—	—		$T_C = +125^\circ C,$ Rated $V_{DRM},$ $R_L = 1000$ ohms.
Peak On-State Voltage	V_{TM}	—	—	1.5	V	$T_C = +25^\circ C, I_{TM} = 1.0A$ peak, 1 msec. wide pulse, Duty Cycle $\leq 2\%$
Holding Current	I_H	—	—	5.0	mA _{dc}	Anode source voltage = 12Vdc, $R_{GK} = 1000$ ohms. $T_C = +25^\circ C$
		—	—	10.0		$T_C = -65^\circ C$
Critical Rate of Rise of Off-State Voltage	dv/dt	—	20	—	V/ μ sec	$T_C = +125^\circ C,$ Rated $V_{DRM},$ $R_{GK} = 1000$ ohms.
Circuit Commutated Turn-Off Time	t_q	—	15	—	μ sec	$T_C = +125^\circ C,$ rectangular current waveform. Rate of rise of current $< 10A/\mu$ sec. Rate reversal of current $< 5A/\mu$ sec. $I_{TM} = 1A$ (50 μ sec. pulse). Rep. Rate = 60 pps. $V_{RRM} =$ Rated, $V_{RX} = 15V$ Min., $V_{DRM} =$ Rated. Rate of Rise of reapplied off-state voltage = 20V/ μ sec.; Gate Bias = 0 Volts, 100 Ohms (during turn-off time interval).
Steady-State Thermal Resistance	$R_{\theta JC}$	—	—	125	$^\circ C/W$	Junction-to-case (flat side of case is temp. ref. point).
	$R_{\theta JA}$	—	—	230		Junction-to-ambient (free convection).
	$R_{\theta JC}$	—	—	110		Junction to P-strap dissipator (rounded surface is temp. ref. point).
	$R_{\theta JA}$	—	—	170		Junction-to-ambient, with P-strap dissipator (free convection).

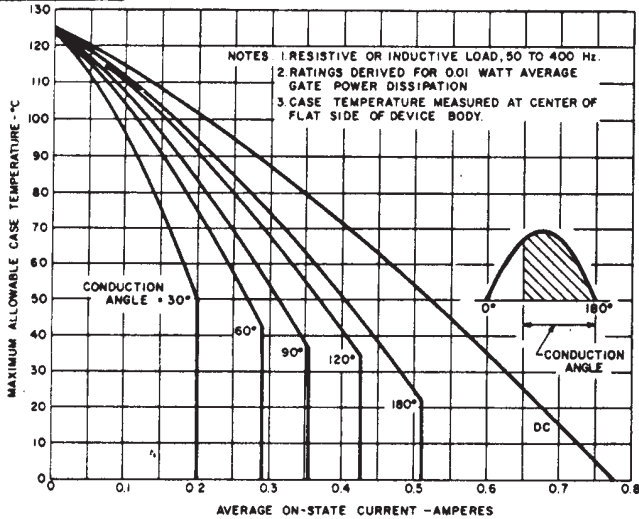


1. MAXIMUM ON-STATE CHARACTERISTICS

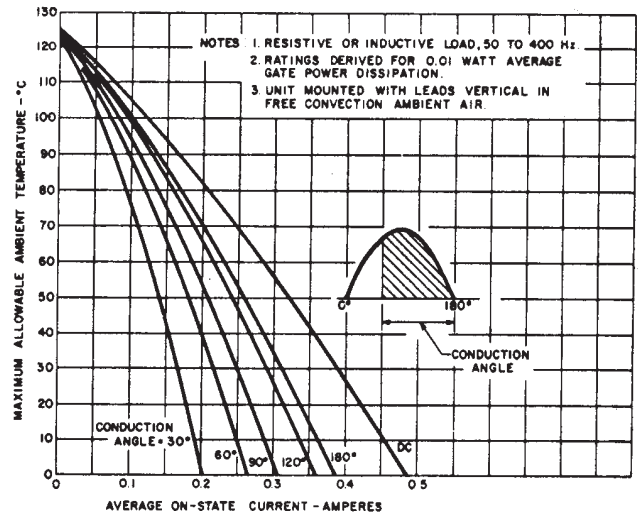


2. MAXIMUM ON-STATE POWER DISSIPATION FOR SINUSOIDAL CURRENT WAVEFORM

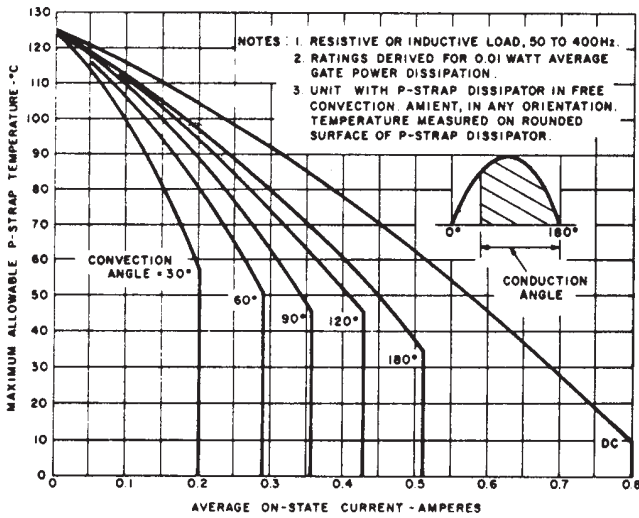
C103



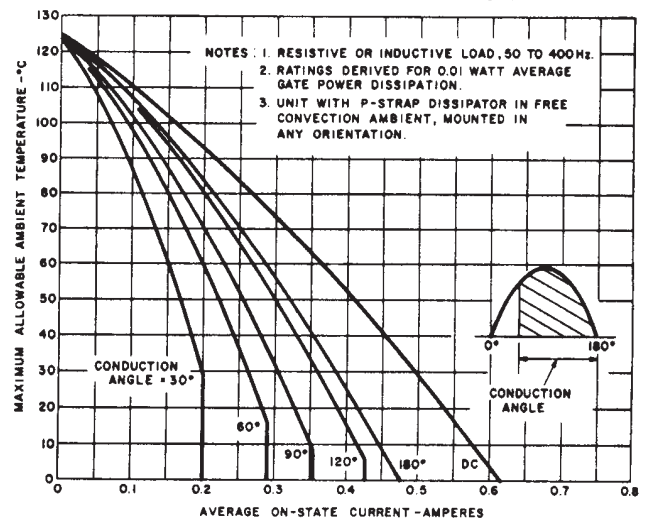
3. MAXIMUM ALLOWABLE CASE TEMPERATURE FOR SINUSOIDAL CURRENT WAVEFORM— WITHOUT P-STRAP DISSIPATOR



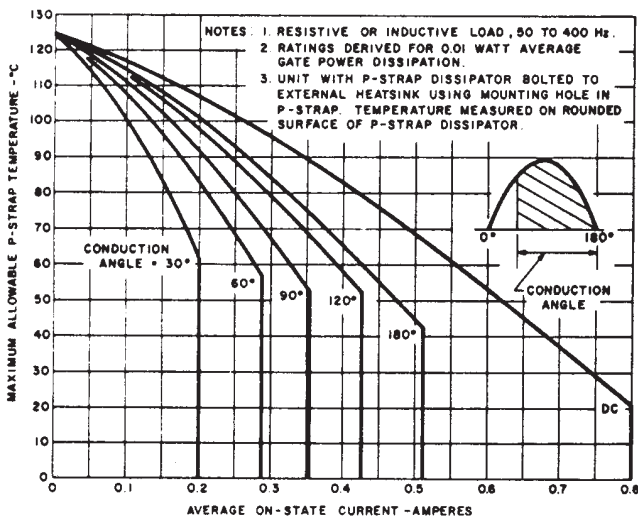
4. MAXIMUM ALLOWABLE AMBIENT TEMPERATURE FOR SINUSOIDAL CURRENT WAVEFORM— WITHOUT P-STRAP DISSIPATOR



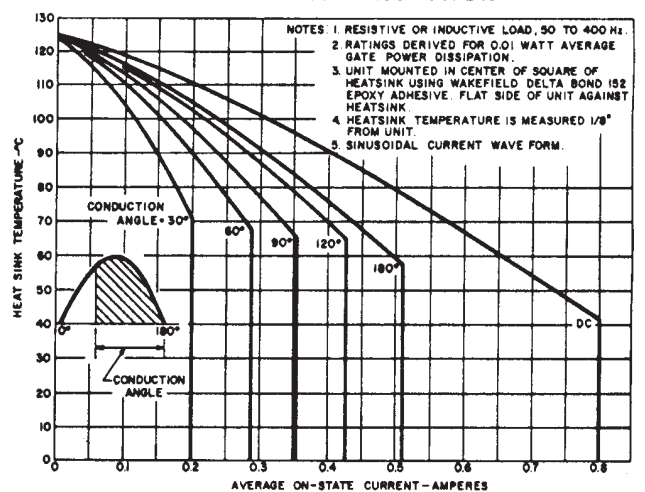
5. MAXIMUM ALLOWABLE P-STRAP TEMPERATURE FOR SINUSOIDAL CURRENT WAVEFORM— NO EXTERNAL HEATSINK



6. MAXIMUM ALLOWABLE AMBIENT TEMPERATURE FOR SINUSOIDAL CURRENT WAVEFORM— WITH P-STRAP DISSIPATOR

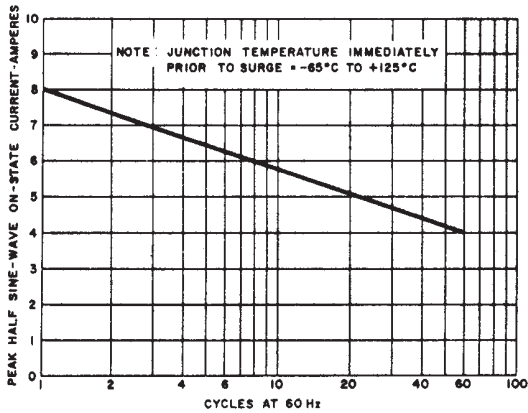


7. MAXIMUM ALLOWABLE P-STRAP TEMPERATURE FOR SINUSOIDAL CURRENT WAVEFORM— MOUNTED TO EXTERNAL HEATSINK

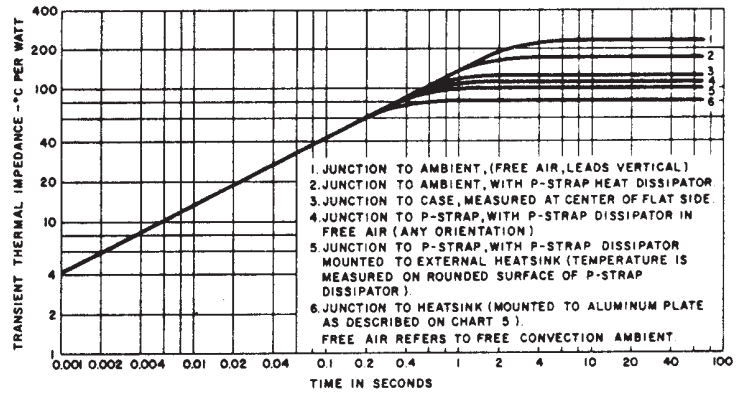


*** 8. TYPICAL CURRENT CARRYING CAPABILITY FOR DEVICE MOUNTED ON 1" x 1" x 1/4" ALUMINUM HEATSINK**

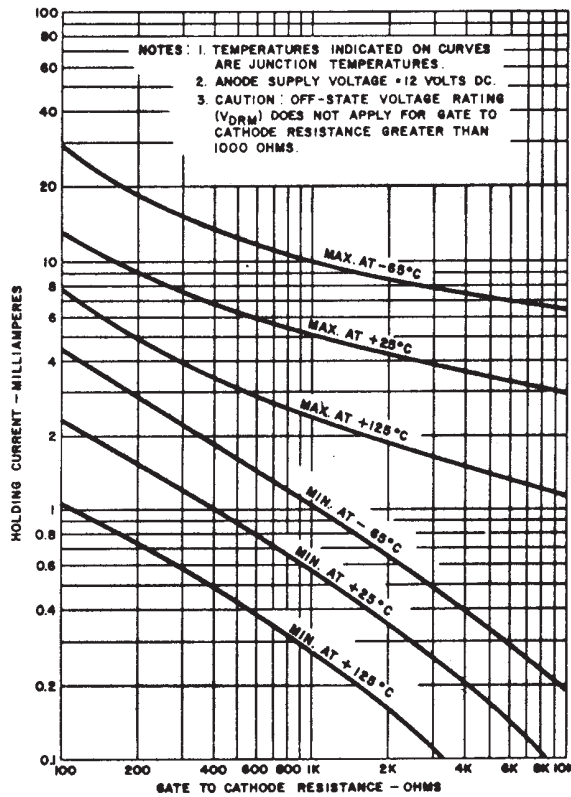
*Chart 8. For Reference only, units are not available in this configuration.



9. MAXIMUM ALLOWABLE SURGE (NON-REPETITIVE) ON-STATE CURRENT



10. MAXIMUM TRANSIENT THERMAL IMPEDANCE



11. MAXIMUM AND MINIMUM HOLDING CURRENT VARIATION WITH GATE TO CATHODE RESISTANCE