

FEATURES

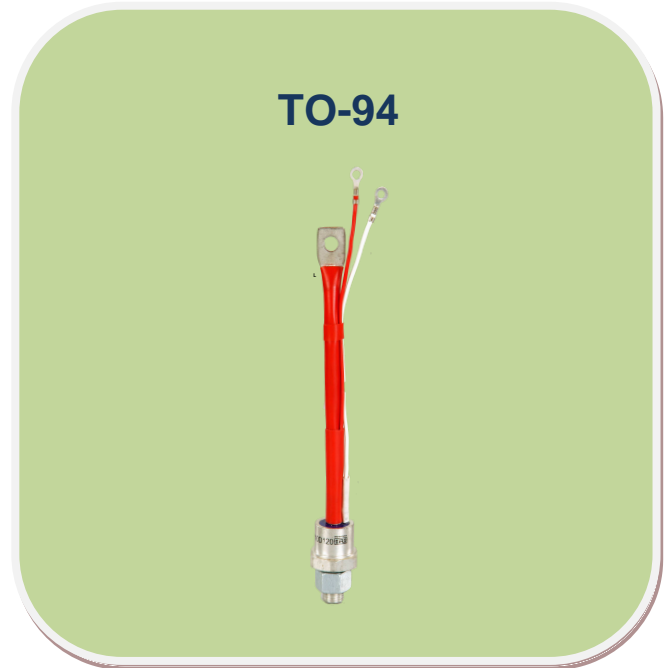
- Hermetic glass to metal seal
- High di/dt & dv/dt capabilities.
- Voltage grade upto 1600V

TYPICAL APPLICATIONS

- DC Motor control
- Controlled rectifiers
- AC Controllers

TECHNICAL DATA

DEVICE TYPE	V_{DRM}/V_{RRM} (V)	V_{RSM} (V)
T70D120	1200	1300
T70D160	1600	1700



SYMBOL	CONDITIONS	VALUES
I_{TAV}	Sin. 180; $T_{case} = 85\text{ }^{\circ}\text{C}$	70 amp.
I_{RMS}	$T_a = 45\text{ }^{\circ}\text{C}$	110 amp.
I_{TSM}	$T_{vj} = 25\text{ }^{\circ}\text{C}$; 10ms	1490 amp.
I^2t	$T_{vj} = 25\text{ }^{\circ}\text{C}$	10180 A ² S
I_{RRM}/I_{DRM}	$T_{vj} = 25\text{ }^{\circ}\text{C}$ $T_{vj} = 125\text{ }^{\circ}\text{C}$	3 mA 15 mA
V_T	$T_{vj} = 25\text{ }^{\circ}\text{C}$ ($I_T = 80\text{ Amp.}$); max	1.80 V
di/dt		150A/us
dv/dt		500V/us
I_{GT}	$T_{vj} = 25\text{ }^{\circ}\text{C}$	250 mA
V_{GT}	$T_{vj} = 25\text{ }^{\circ}\text{C}$	3.5 V
I_H	$T_{vj} = 25\text{ }^{\circ}\text{C}$ Typical value	200 mA
I_L	$T_{vj} = 25\text{ }^{\circ}\text{C}$ Typical value	400 mA
$R_{th(j-c)}$	Junction to case	0.35°C/W
$R_{th(c-h)}$	case to heat sink	0.1°C/W
T_{vj}		125 °C
T_{stg}		125 °C
Mounting torque		10 Nm
Weight	Approx.	100 gm
Package Outline		D

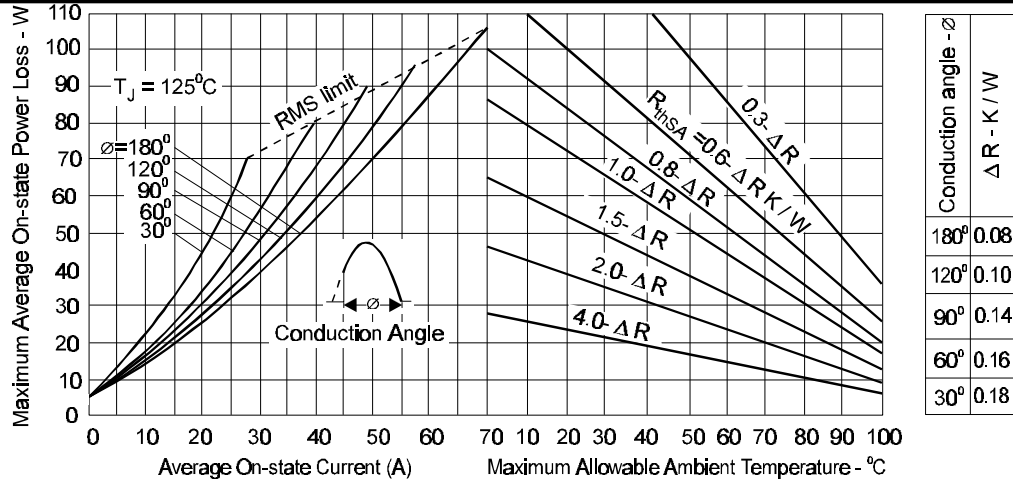


Fig. 1 - Current Rating Nomogram (Sinusoidal Waveforms, 40-400 Hz),

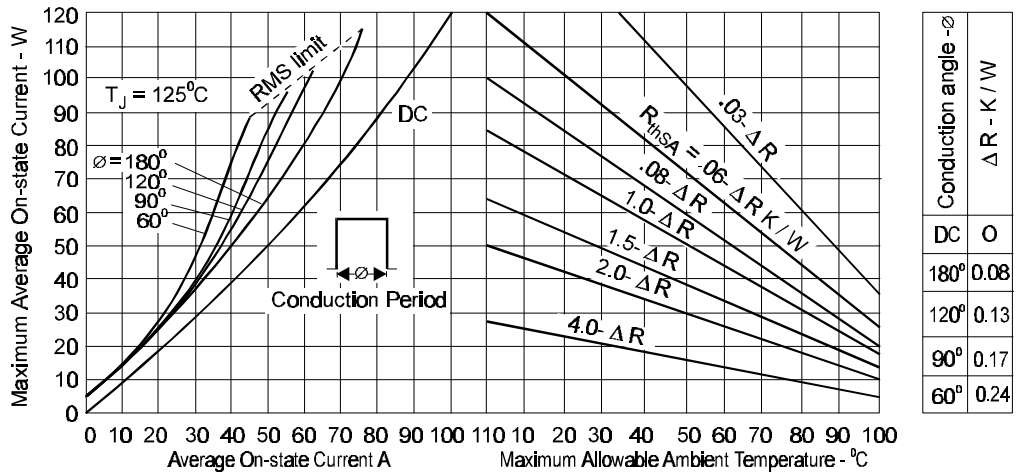


Fig. 2 - Current Rating Nomogram (Rectangular Waveforms, 40-400 Hz),

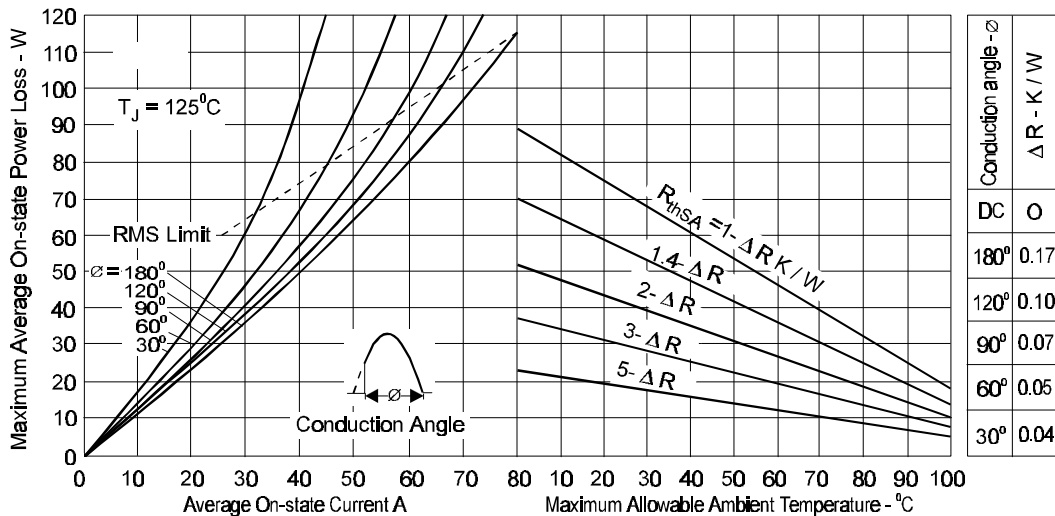


Fig. 3 - Current Rating Nomogram (Sinusoidal Waveforms, 40-400 Hz),

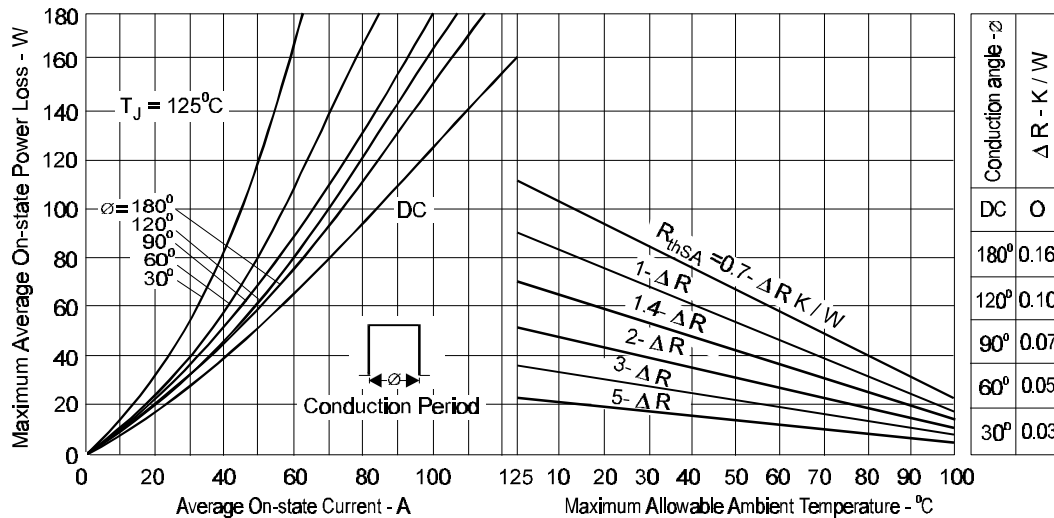


Fig. 4 - Current Rating Nomogram (Rectangular Waveforms, 40-400 Hz),

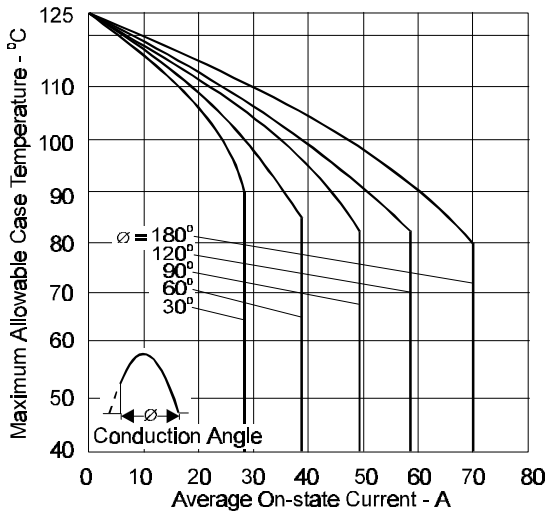


Fig. 5 - Average On-state Current Vs. Maximum Allowable Case Temperature (Sinusoidal Current Waveform),

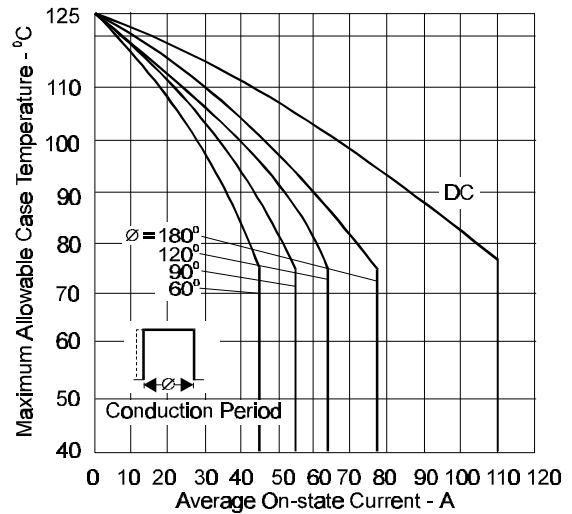


Fig. 6 - Average On-state Current Vs. Maximum Allowable Case Temperature (Rectangular Current Waveform),

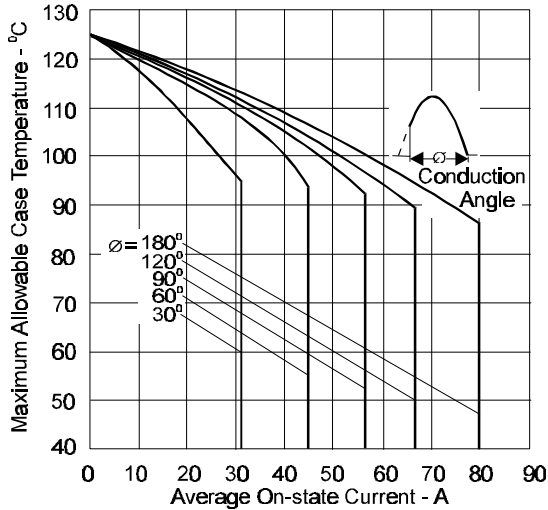


Fig. 7 - Average On-state Current Vs. Maximum Allowable Case Temperature (Sinusoidal Current Waveform),

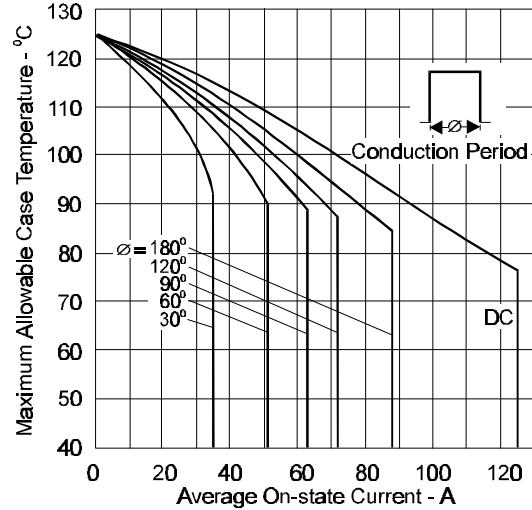


Fig. 8 - Average On-state Current Vs. Maximum Allowable Case Temperature (Rectangular Current Waveform),

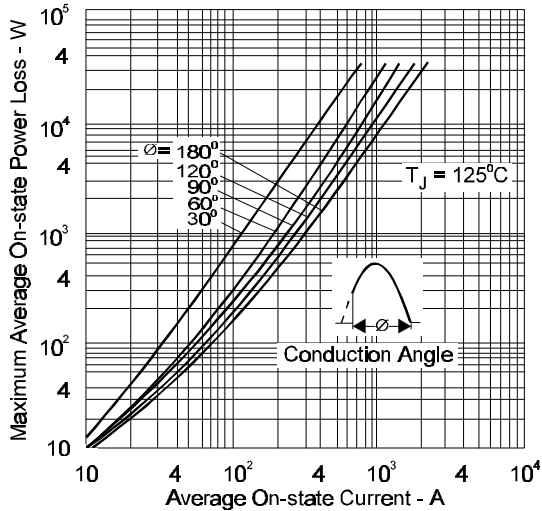


Fig. 9 - Maximum On-state Power Loss Vs. Average On-state Current (Sinusoidal Current Waveform)

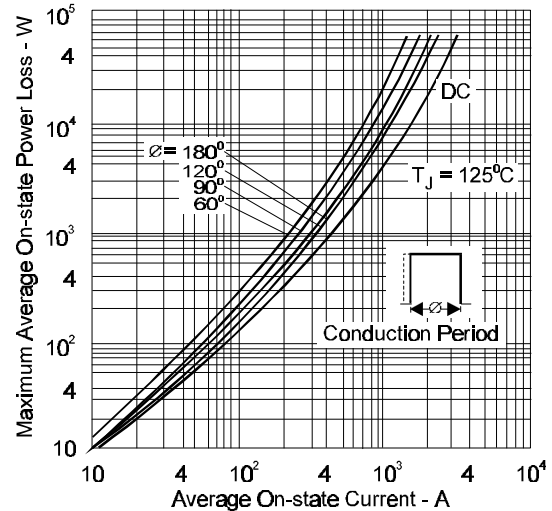


Fig. 10 - Maximum On-state Power Loss Vs. Average On-state Current (Rectangular Current Waveform),

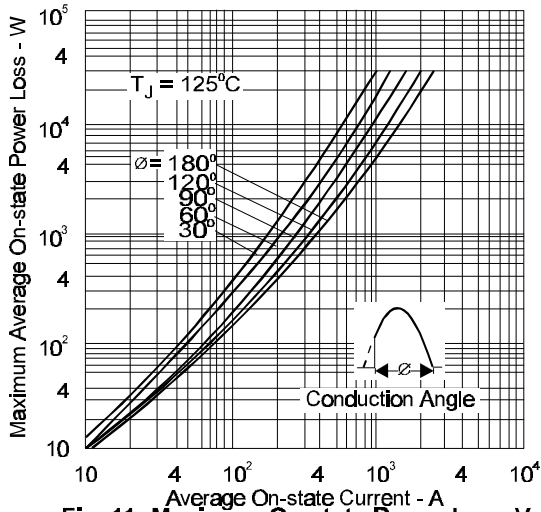


Fig. 11- Maximum On-state Power Loss Vs. Average On-state Current (Sinusoidal Current Waveform),

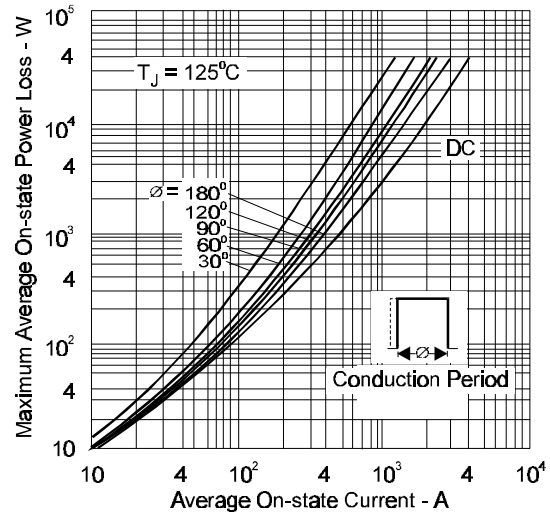


Fig. 12 - Maximum On-state Power Loss Vs. Average On-state Current (Rectangular Current Waveform),

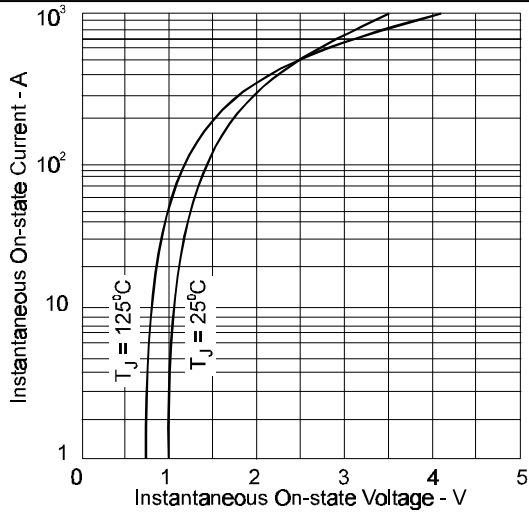


Fig. 13- Maximum Instantaneous On-state Voltage Vs. Instantaneous On-state Current,

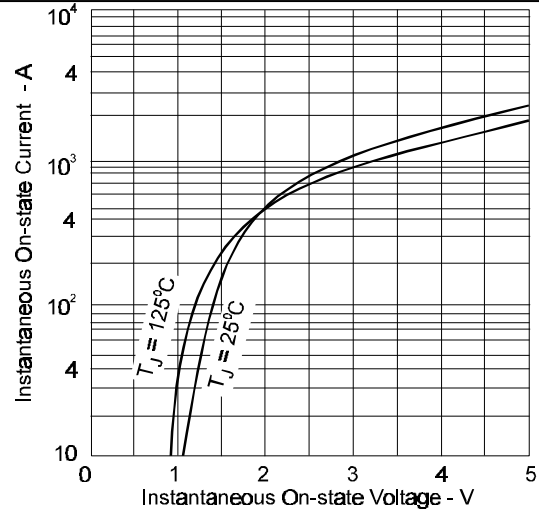


Fig. 14- Maximum Instantaneous On-state Voltage Vs. Instantaneous On-state Current,

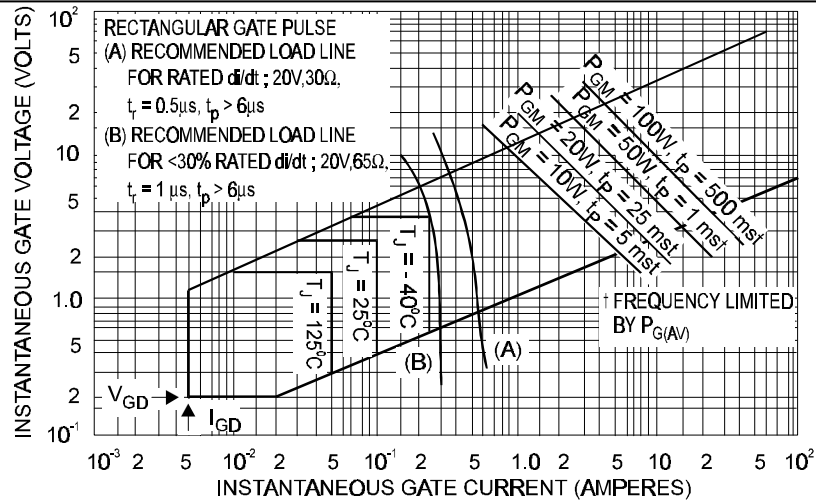


Fig. 15 - Gate Characteristics

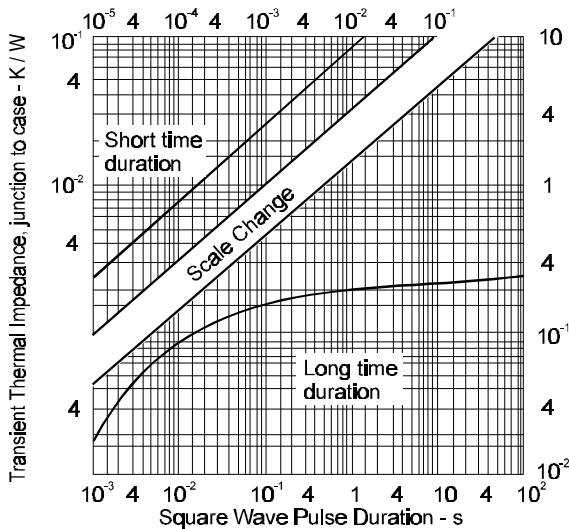


Fig. 16 - Maximum Transient Thermal Impedance Vs. Square Wave Pulse Duration,

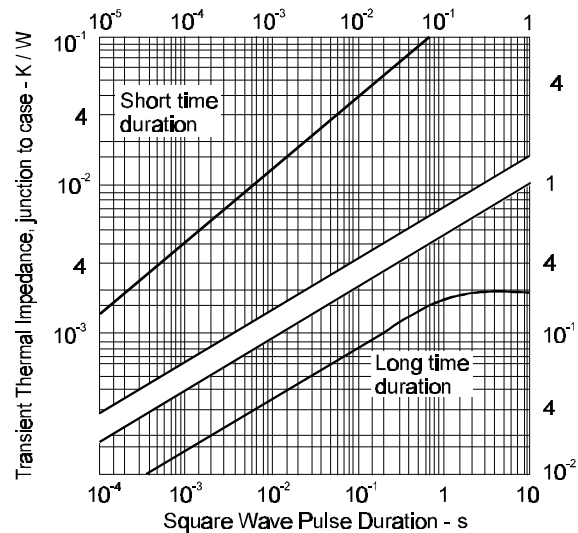


Fig. 17 - Maximum Transient Thermal Impedance Vs. Square Wave Pulse Duration,

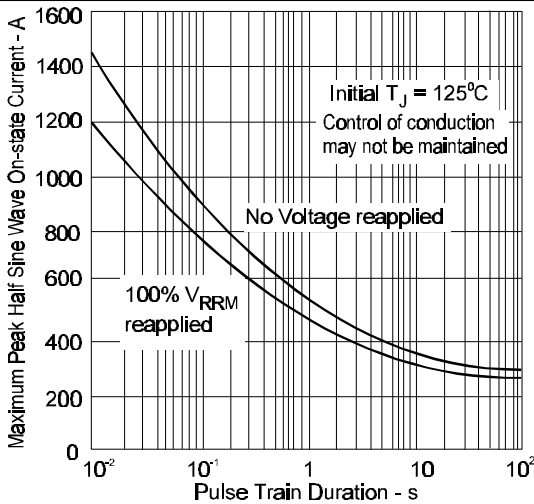


Fig. 18 - Maximum Non-Repetitive Surge Current Vs. Pulse Train Duration,

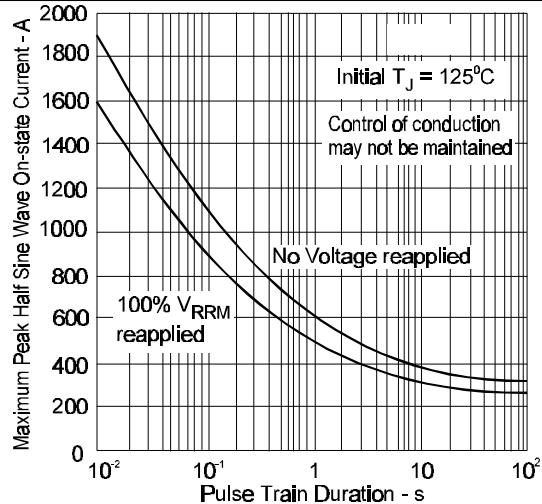
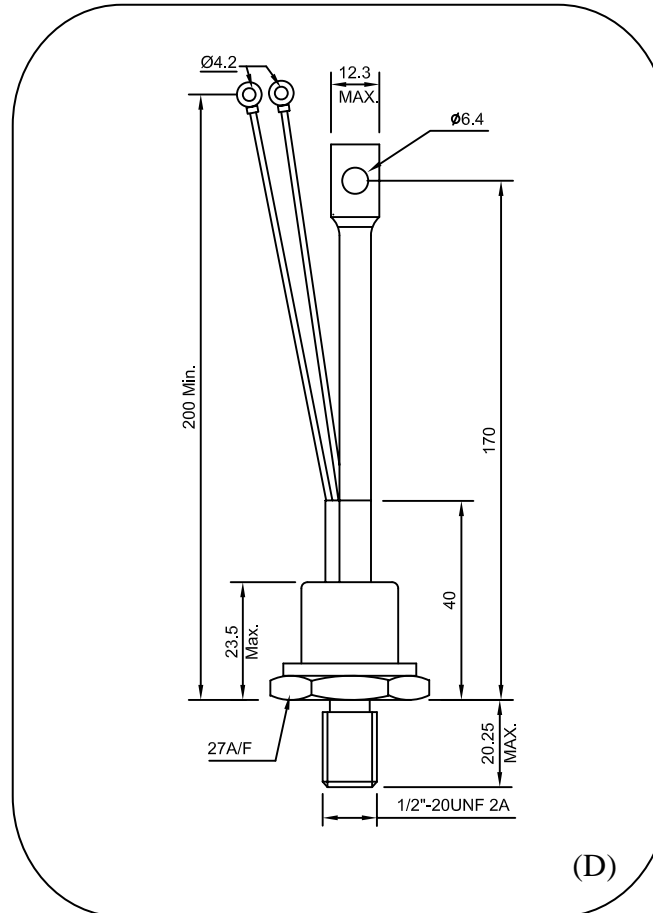


Fig. 19 - Maximum Non-Repetitive Surge Current Vs. Pulse Train Duration,

PACKAGE OUTLINE



All dimension are in mm .

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