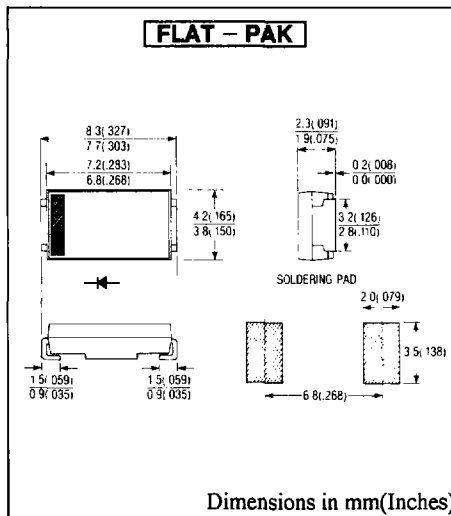


FEATURES

- Surface Mounting Device
- Low Forward Voltage Drop
- Low Power Loss, High Efficiency
- High Surge Capability
- 20 Volts thru 100 Volts Types Available
- Packaged in 16mm Tape and Reel
- Not Rolling During Assembly



MAXIMUM RATINGS

Voltage Rating	TYPE Symbol	NSQ03A06		Unit
Repetitive Peak Reverse Voltage	V_{RRM}	60		V
Electrical Rating	Symbol	Condition	Rating	Unit
Average Rectified Output Current (resistive load)	I_O	180° rectangular wave conduction $T_\ell^* = 82^\circ\text{C}$	3.3	A
		180° sinusoidal wave conduction $T_\ell^* = 90^\circ\text{C}$	3.0	
Peak One-cycle Forward Surge Current	I_{FSM}	50Hz half sine wave, non-repetitive	50	A
Operating Junction Temperature Range	T_{jw}		-40 to 125	°C
Storage Temperature Range	T_{stg}		-40 to 125	°C

ELECTRICAL & THERMAL CHARACTERISTICS

Characteristics	Symbol	Test Condition	Max.	Unit
Peak Forward Voltage	V_{FM}	$I_{FM} = 3A, T_j = 25^\circ\text{C}$	0.58	V
Peak Reverse Current	I_{RM}	$V_{RM} = V_{RRM}, T_j = 25^\circ\text{C}$	3.0	mA
Thermal Resistance	$R_{th(j-\ell)}$	Junction to Lead	13	°C/W

* T_ℓ = Lead Temperature

FIG 1 - FORWARD VOLTAGE VS. FORWARD CURRENT

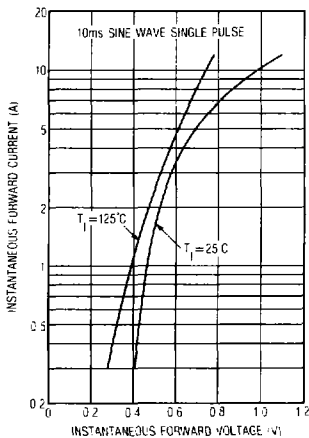


FIG 2 - AVERAGE FORWARD POWER DISSIPATION

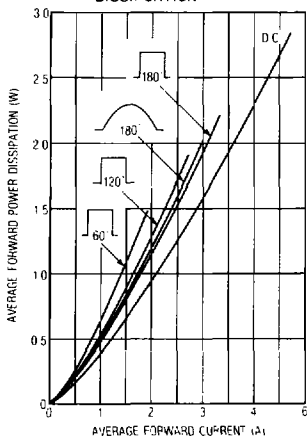


FIG 3 - PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

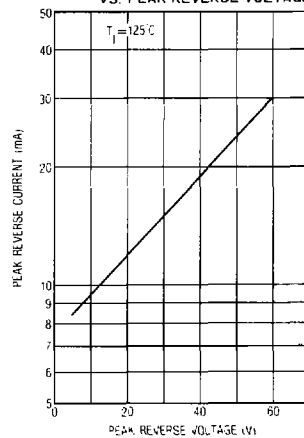


FIG 4 - AVERAGE REVERSE POWER DISSIPATION

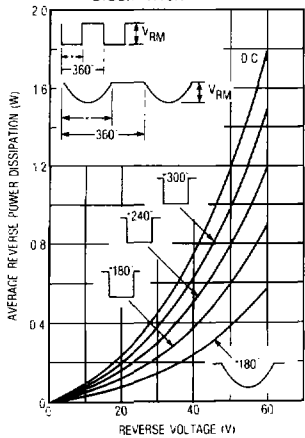


FIG 5 - AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

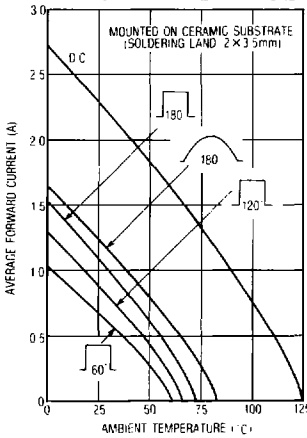


FIG 6 - AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE

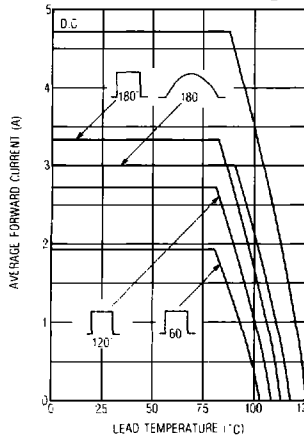


FIG 7 - SURGE CURRENT RATINGS

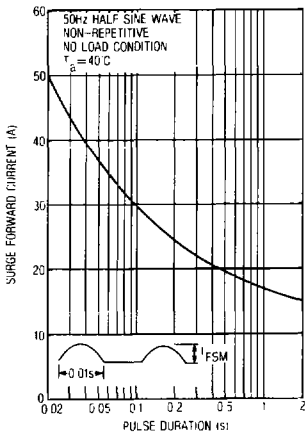


FIG 8 - JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

