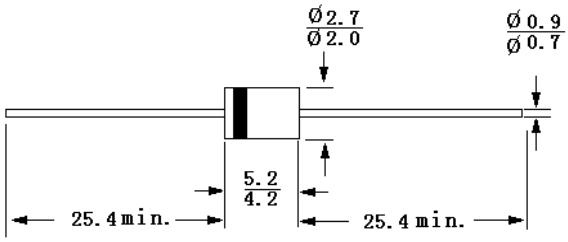
R2500F THRU R3000F (DO-41)

HIGH VOLTAGE FAST RECOVERY RECTIFIERS
Reverse Voltage – 2500 to 3000 Volts
Forward Current – 0.2 Amperes

DO-41



Dimensions in mm

Features

- Fast switching
- Low leakage
- High current capability
- High surge capability
- High reliability

Absolute Maximum Ratings and Characteristics

Ratings at 25^{0}C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

	Symbols	R2500F	R3000F	Units
Maximum recurrent peak reverse voltage	V_{RRM}	2500	3000	V
Maximum RMS voltage	V_{RMS}	1750	2100	V
Maximum DC blocking voltage	V_{DC}	2500	3000	V
Maximum forward voltage at 0.2 A	V_F	4.0	5.0	V
Maximum average forward rectified current .375"(9.5mm) lead length at T_A = 50℃	$I_{(AV)}$	0.2		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30		A
Maximum reverse current at T_A = 25℃	I_R	5.0		μA
at rated DC blocking voltage T_A = 100℃		100		
Maximum full load reverse current average, Full cycle 0.375"(9.5mm)lead length at T_L = 55℃		100		
Maximum reverse recovery time (Note 1)	T_{RR}	500		ns
Operating and storage temperature range	T_J ,T_S	-55 to +150		℃

Notes: (1) Reverse recovery test conditions I_F=0.5A, I_R=1A, I_{RR}=0.25A.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

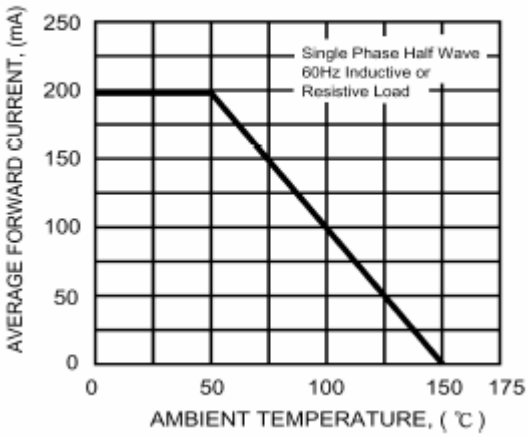


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

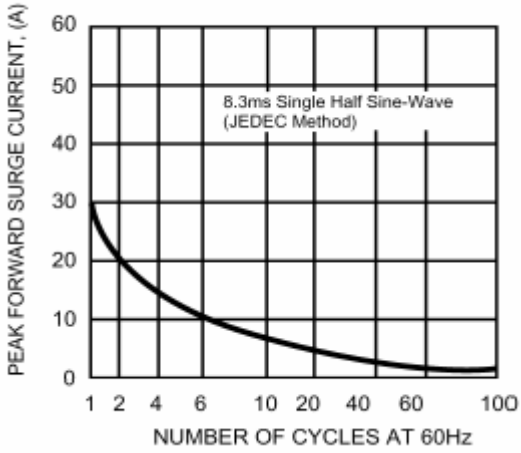


FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC