

R2500F THRU R5000F

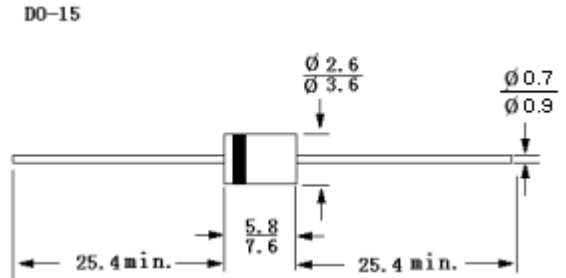
HIGH VOLTAGE FAST RECOVERY RECTIFIERS

Reverse Voltage – 2500 to 5000 Volts

Forward Current – 0.2 Amperes

Features

- Fast switching
- Low leakage
- Low forward voltage drop
- High current capability
- High current surge
- High reliability



Dimensions in mm

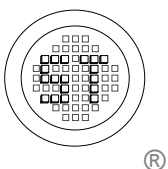
Absolute Maximum Ratings and Characteristics

Ratings at 25°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	R4000F	R5000F	Units
Maximum recurrent peak reverse voltage	V_{RRM}	2500	3000	4000	5000	V
Maximum RMS voltage	V_{RMS}	1750	2100	2800	3500	V
Maximum DC blocking voltage	V_{DC}	2500	3000	4000	5000	V
Maximum forward voltage at 0.2 A	V_F	4.0	5.0	6.5		V
Maximum average forward rectified current .375"(9.5mm) lead length at $T_A = 50^\circ C$	$I_{(AV)}$	0.2				A
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30				A
Maximum DC reverse current at rated DC blocking voltage $T_A = 25^\circ C$	I_R	5.0				μA
Maximum full load reverse current average, Full cycle 0.375"(9.5mm)lead length at $T_L = 55^\circ C$		100				
Maximum reverse recovery time (Note 1)	T_{RR}	500				ns
Operating and storage temperature range	T_J, T_S	-55 to +150				$^\circ C$

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

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SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO 14001 Certificate No. 7116
Dated : 27/05/2005 H

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FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

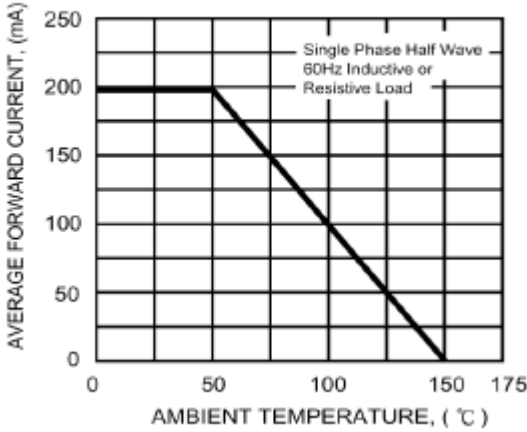


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

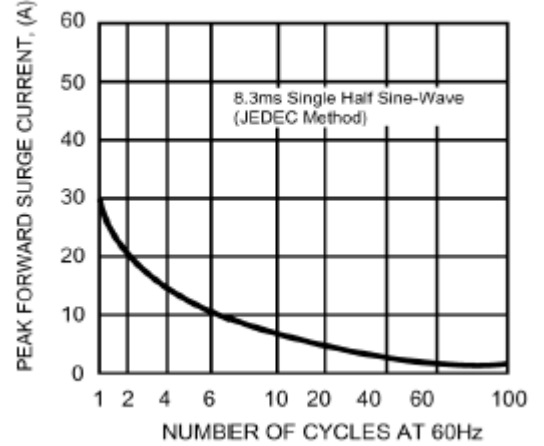
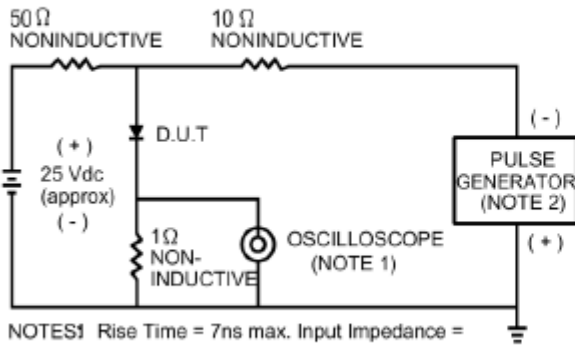
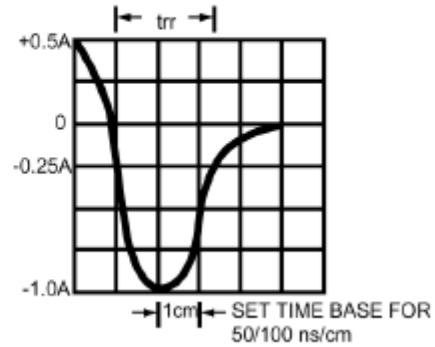


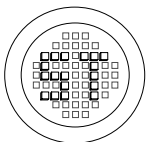
FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time = 7ns max. Input Impedance = 1 megohm, 22 pF.
 2. Rise Time = 10ns max. Source Impedance = 50 ohms.



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