

# R2500F THRU R3000F (DO-41)

## HIGH VOLTAGE FAST RECOVERY RECTIFIERS

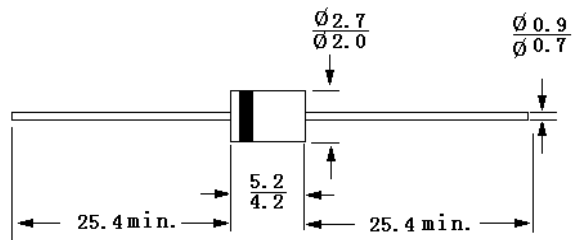
Reverse Voltage – 2500 to 3000 Volts

Forward Current – 0.2 Amperes

DO-41

### Features

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



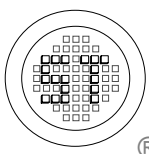
Dimensions in mm

### 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%.

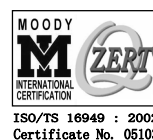
	Symbols	R2500F	R3000F	Units
Maximum recurrent peak reverse voltage	$V_{RRM}$	2500	3000	V
Maximum RMS voltage	$V_{RMS}$	1750	2100	V
Maximum DC blocking voltage	$V_{DC}$	2500	3000	V
Maximum forward voltage at 0.2 A	$V_F$	4.0	5.0	V
Maximum average forward rectified current .375"(9.5mm) lead length at $T_A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

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



**SEMTECH ELECTRONICS LTD.**

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



ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001  
Certificate No. 7116



ISO 9001 : 2000  
Certificate No. 550-159-04-002-04

Dated : 28/05/2005 H

# R2500F THRU R3000F (DO-41)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

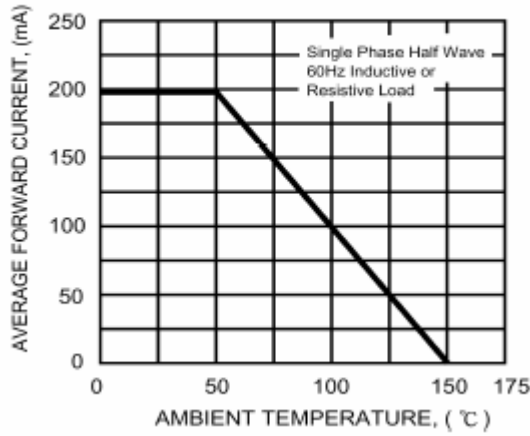


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

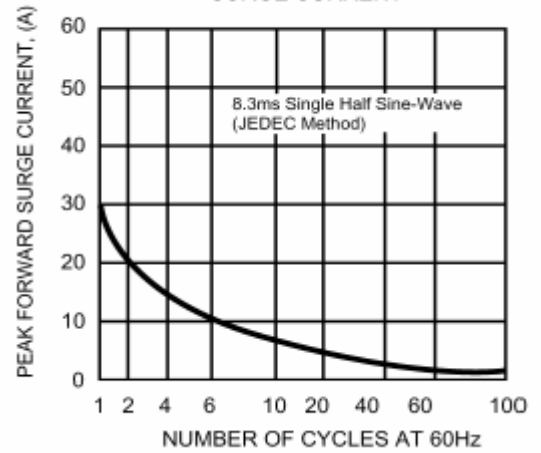
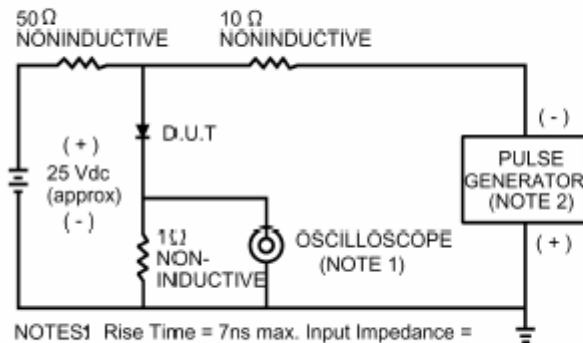
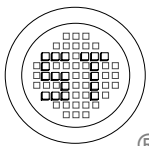
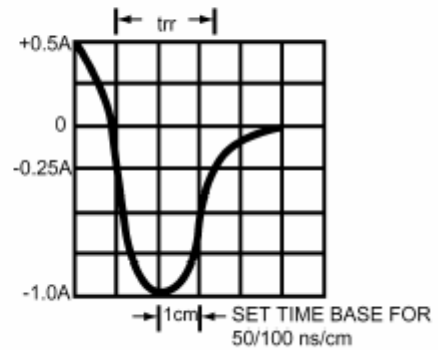


FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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



## SEMTECH ELECTRONICS LTD.

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

