

# R2500 THRU R5000

## HIGH VOLTAGE SILICON RECTIFIERS

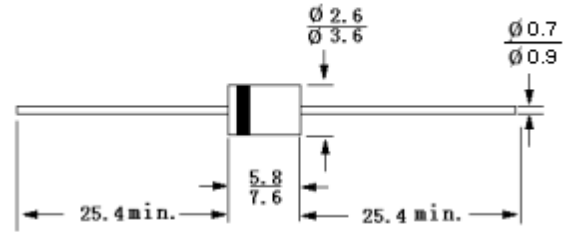
Reverse Voltage – 2500 to 5000 Volts

Forward Current – 0.2 Amperes

### Features

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability

DO-15



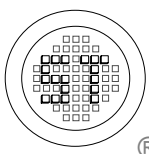
Dimensions in mm

### 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%.

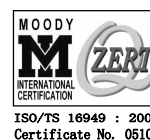
	Symbols	R2500	R3000	R4000	R5000	Units
Maximum recurrent peak reverse voltage	$V_{RRM}$	2500	3000	4000	5000	V
Maximum RMS voltage	$V_{RMS}$	1750	2100	2800	3500	V
Maximum DC blocking voltage	$V_{DC}$	2500	3000	4000	5000	V
Maximum forward voltage at 0.2 A	$V_F$	3.0	4.0	5.0		V
Maximum average forward rectified current at $T_A = 50^\circ\text{C}$	$I_{(AV)}$	200				mA
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	$T_A = 25^\circ\text{C}$	5.0				$\mu\text{A}$
	$T_A = 100^\circ\text{C}$	100				
Maximum full load reverse current average, Full cycle 0.375"(9.5mm)lead length at $T_L = 75^\circ\text{C}$	$I_R$	30				
Typical junction capacitance (Note 1)	$C_J$	30				pF
Operating and storage temperature range	$T_J, T_S$	-55 to +150				°C

Notes: (1) Measured at 1MHz and applied reverse voltage of 4VDC



**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. 550-159-04-00-04

Dated : 30/03/2005 H

# R2500 THRU R5000

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

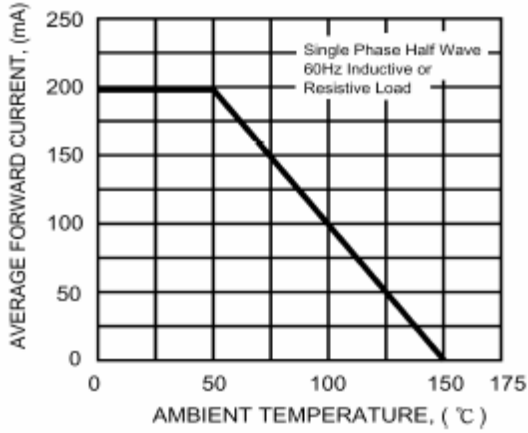


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

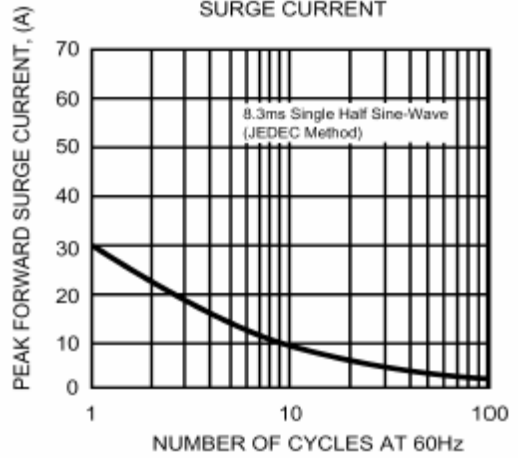
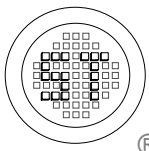
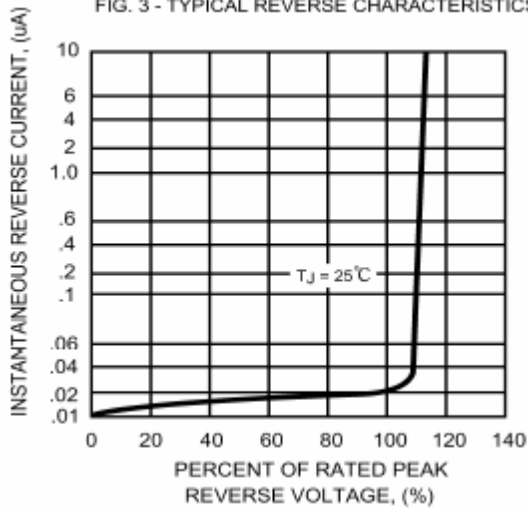


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS



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