

# R1200 THRU R2000

## HIGH VOLTAGE SILICON RECTIFIERS

Reverse Voltage – 1200 to 2000 Volts

Forward Current – 0.2 to 0.5 Ampere

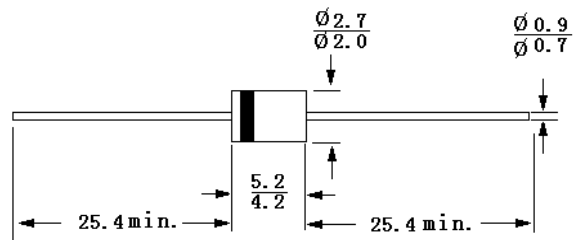
DO-41

### Features

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

### Mechanical Data

- **Case:** Molded plastic, DO-41
- **Mounting Position:** Any
- **Terminals:** Axial leads, solderable per MIL-STD-202



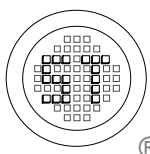
Dimensions in mm

### Absolute Maximum Ratings and Characteristics

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

	Symbols	R1200	R1500	R1800	R2000	Units
Maximum recurrent peak reverse voltage	$V_{RRM}$	1200	1500	1800	2000	Volts
Maximum RMS voltage	$V_{RMS}$	840	1050	1260	1400	Volts
Maximum DC blocking voltage	$V_{DC}$	1200	1500	1800	2000	Volts
Maximum average forward rectified current at $T_A = 55^\circ\text{C}$	$I_O$	500			200	mAmps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30				Amps
Maximum instantaneous forward voltage at 0.5A/0.2A DC	$V_F$	2			3	Volts
Maximum DC reverse current at rated DC blocking voltage	@ $T_A = 25^\circ\text{C}$	5				$\mu\text{Amps}$
	@ $T_A = 100^\circ\text{C}$	100				
Maximum full load reverse current average, Full cycle 0.375" (9.5 mm) lead length at $T_L = 75^\circ\text{C}$		30				$\mu\text{Amps}$
Typical junction capacitance (Note )	$C_J$	30				pF
Operating and storage temperature range	$T_J, T_S$	-55 to +150				$^\circ\text{C}$

Notes: Measured at 1MHz and applied reverse voltage of 4volts.



**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 : 30/03/2005 H

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FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

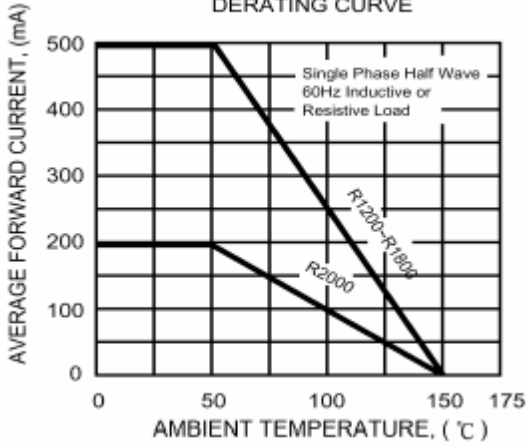


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

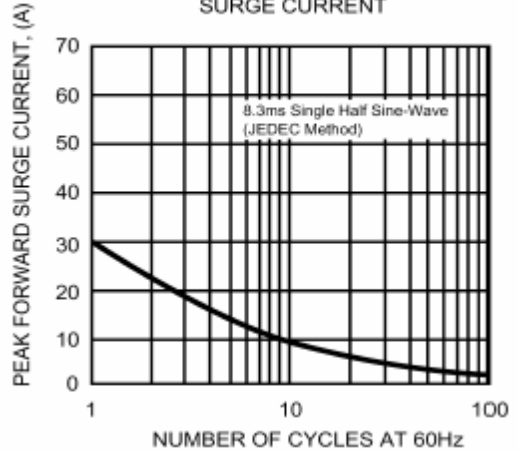
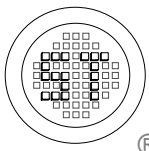
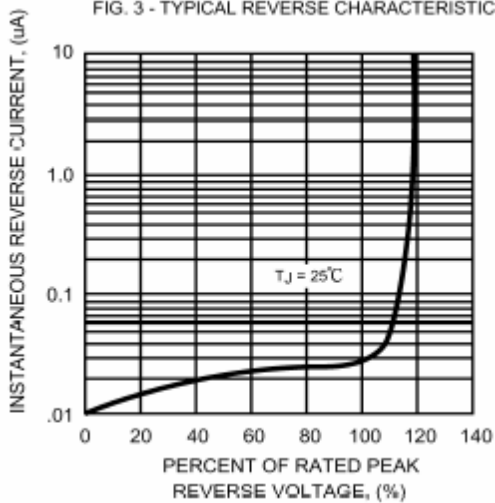


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS



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