

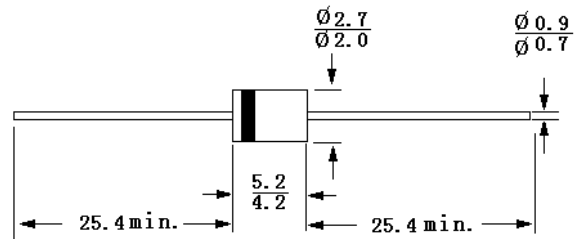
PR1600, PR1800

HIGH VOLTAGE SILICON RECTIFIERS Reverse Voltage – 1600 to 1800 Volts Forward Current – 0.1 Amperes

DO-41

Features

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



Dimensions in mm

Mechanical Data

- **Case:** Molded plastic, DO-41,
- **Terminals:** Axial leads, solderable per MIL-STD-202. Method 208.
- **Polarity:** Color band denotes cathode.
- **Mounting Position:** Any.

Absolute Maximum Ratings and Characteristics

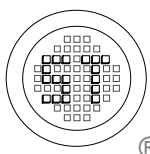
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz. resistive or inductive load. For capacitive load, derate current by 20%.

	Symbols	PR1600	PR1800	Units
Maximum recurrent peak reverse voltage	V_{RRM}	1600	1800	V
Maximum RMS voltage	V_{RMS}	1120	1260	V
Maximum DC blocking voltage	V_{DC}	1600	1800	V
Maximum average forward rectified current 9.5 mm lead length @ $T_A = 75^\circ\text{C}$	$I_{(AV)}$	0.1		A
Peak forward surge current @ $T_A = 125^\circ\text{C}$ 8.3ms single half-sine-wave superimposed on rated load	I_{FSM}	20		A
Maximum instantaneous forward voltage at 0.1A	V_F	15		V
Maximum reverse current @ $T_A = 25^\circ\text{C}$	I_R	5	100	μA
Maximum reverse recovery time (Note 1)	t_{rr}	300		nS
Typical junction capacitance (Note 2)	C_J	20		pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	35		$^\circ\text{C/W}$
Operating junction temperature range	T_J	-65 to +150		$^\circ\text{C}$
Storage temperature range	T_S	-65 to +150		$^\circ\text{C}$

Notes: (1) Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.

(2) Measured at 1MHz and applied reverse voltage of 4VDC.

(3) Thermal Resistance Junction to Ambient.



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(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
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ISO 9001 : 2000
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