

PR1600, PR1800

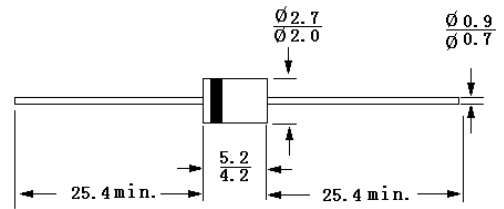
High Voltage Silicon Rectifiers

Reverse Voltage - 1600 to 1800 V
Forward Current - 0.1 A

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%.

Parameter	Symbols	PR1600	PR1800	Units
	Marking	PR1600	PR1800	-
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 $T_a = 75^\circ\text{C}$	$I_{F(AV)}$	0.1		A
Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed on Rated Load $T_a = 125^\circ\text{C}$	I_{FSM}	20		A
Maximum Instantaneous Forward Voltage at 0.1 A	V_F	1.5		V
Maximum Reverse Current at Rated DC Blocking Voltage $T_a = 25^\circ\text{C}$ $T_a = 100^\circ\text{C}$	I_R	5 100		μA
Maximum Reverse Recovery Time ¹⁾	t_{rr}	300		nS
Typical Junction Capacitance ²⁾	C_J	20		pF
Typical Thermal Resistance ³⁾	$R_{\theta JA}$	35		°C/W
Operating Junction Temperature Range	T_j	- 65 to +150		°C
Storage Temperature Range	T_{Stg}	- 65 to +150		°C

¹⁾ Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $t_{rr} = 0.25\text{ A}$.

²⁾ Measured at 1MHz and applied reverse voltage of 4 V DC.

³⁾ Thermal resistance junction to ambient.

