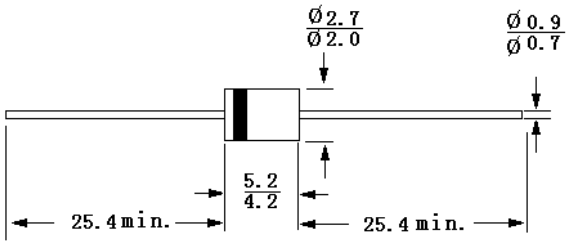
PR1600, PR1800

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

DO-41



Dimensions in mm

Features

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

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^{0}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 ^{O}C	$I_{(AV)}$	0.1		A
Peak forward surge current @ T_A = 125 ^{O}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 ^{O}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		^{O}C/W
Operating junction temperature range	T_J	-65 to +150		^{O}C
Storage temperature range	T_S	-65 to +150		^{O}C

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

(2) Measured at 1MH$_Z$ and applied reverse voltage of 4VDC.

(3) Thermal Resistance Junction to Ambient.