

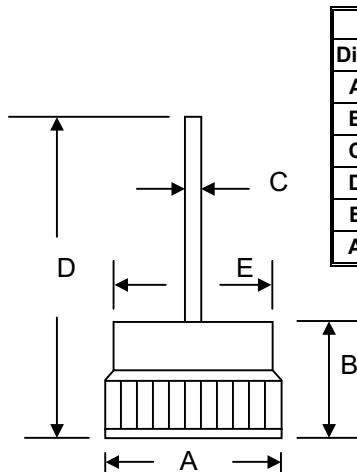
Data Sheet 2506 Rev.—

Features

- Diffused Junction
- Low Leakage
- Low Cost
- High Surge Current Capability
- Typical IR less than 10 μ A

Mechanical Data

- Case: Copper Case
- Terminals: Contact Areas Readily Solderable
- Polarity: Cathode to Case(Reverse Units Are Available Upon Request and Are Designated By An "R" Suffix, i.e. BD5002R or BD5004R)
- Polarity: Red Color Equals Standard, Black Color Equals Reverse Polarity
- Mounting Position: Any



13mm Bosch		
Dim	Min	Max
A	0.508(12.9)	0.516(13.1)
B	0.303(7.70)	0.319(8.10)
C	0.049(1.25)	0.052(1.31)
D	1.145(29.1)	1.224(31.1)
E	0.437(11.1)	0.453(11.5)
All Dimensions in inch(mm)		

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristic	Symbol	BD5000	BD5001	BD5002	BD5003	BD5004	BD5005	BD5006	Unit
Peak Repetitive Reverse Voltage	V_{RRM}								
Working Peak Reverse Voltage	VR_{WM}	50	100	200	300	400	500	600	V
DC Blocking Voltage	VR								
RMS Reverse Voltage	$VR(\text{RMS})$	35	70	140	210	280	350	420	V
Average Rectified Output Current @ $T_A = 150^\circ\text{C}$	I_o				50				A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}				500				A
Forward Voltage @ $I_F = 100\text{A}$	V_{FM}				1.18				V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_{RM}				10				μA
Typical Junction Capacitance (Note 1)	C_j				300				pF
Typical Thermal Resistance Junction to Case (Note 2)	$R_{\theta JC}$				1.2				K/W
Operating and Storage Temperature Range	T_J, T_{STG}				-65 to +175				$^\circ\text{C}$

*Glass passivated forms are available upon request

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance: Junction to case, single side cooled.