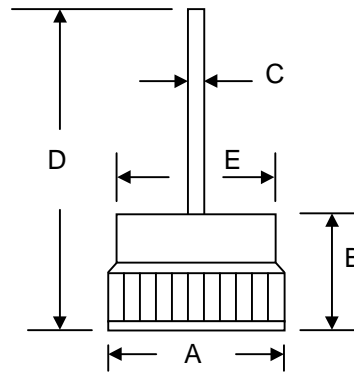


### Features

- Diffused Junction
- Low Leakage
- Low Cost
- High Surge Current Capability
- Typical IR less than 10 $\mu$ 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	12.90	13.06
B	7.70	8.10
C	1.25	1.31
D	29.10	31.10
E	11.10	11.50
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°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 <sub>RRM</sub>								V
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	300	400	500	600	
DC Blocking Voltage	V <sub>R</sub>								
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	210	280	350	420	V
Average Rectified Output Current @T <sub>A</sub> = 150°C	I <sub>O</sub>	50							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	500							A
Forward Voltage @I <sub>F</sub> = 100A	V <sub>FM</sub>	1.18							V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	10 500							$\mu$ A
Typical Junction Capacitance (Note 1)	C <sub>j</sub>	300							pF
Typical Thermal Resistance Junction to Case (Note 2)	R <sub><math>\theta</math>JC</sub>	1.2							K/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175							°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.

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
BD5000	Press Fit	100 Units/Tray
BD5001	Press Fit	100 Units/Tray
BD5002	Press Fit	100 Units/Tray
BD5003	Press Fit	100 Units/Tray
BD5004	Press Fit	100 Units/Tray
BD5005	Press Fit	100 Units/Tray
BD5006	Press Fit	100 Units/Tray

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

Won-Top Electronics Co., Ltd (WTE) has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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*We power your everyday.*