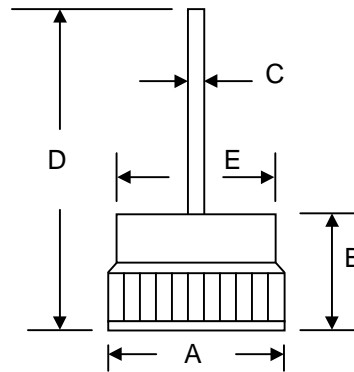


### Features

- 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. BD2502R or BD2504R)
- 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	BD2500	BD2501	BD2502	BD2503	BD2504	BD2505	BD2506	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>	25							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	400							A
Forward Voltage @I <sub>F</sub> = 50A	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.

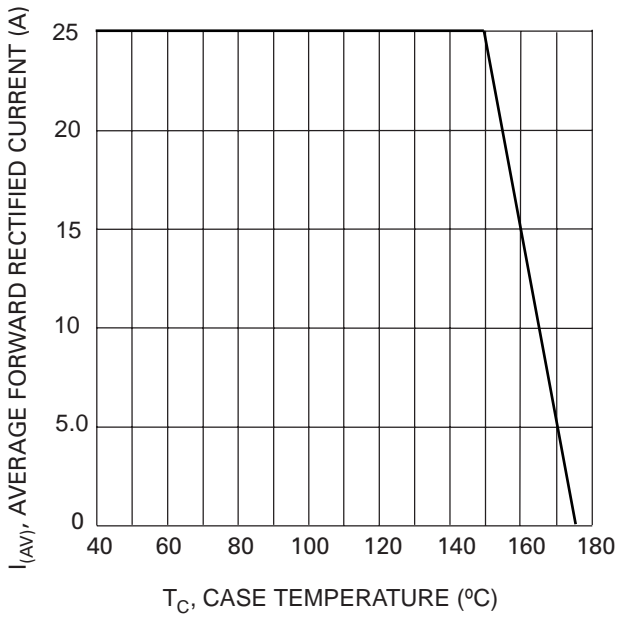


Fig. 1 Forward Current Derating Curve

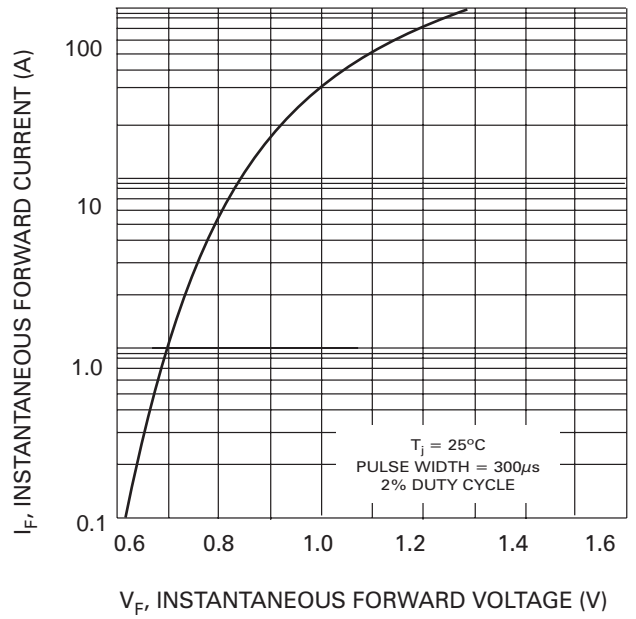


Fig. 2 Typical Forward Characteristics

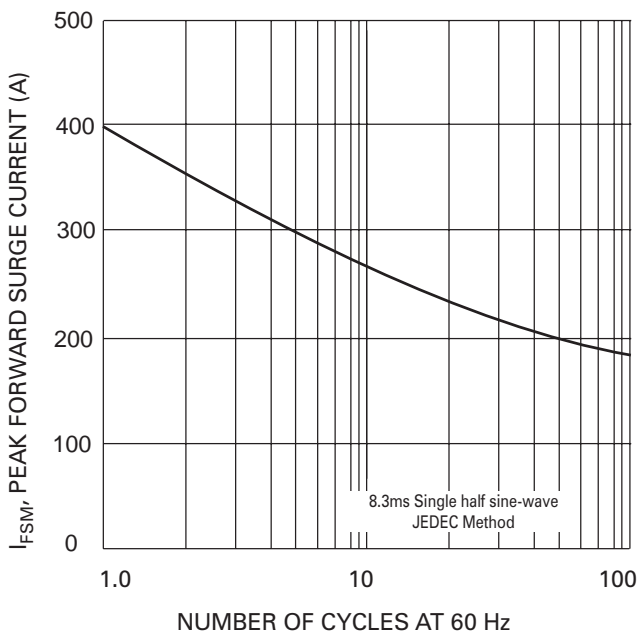


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

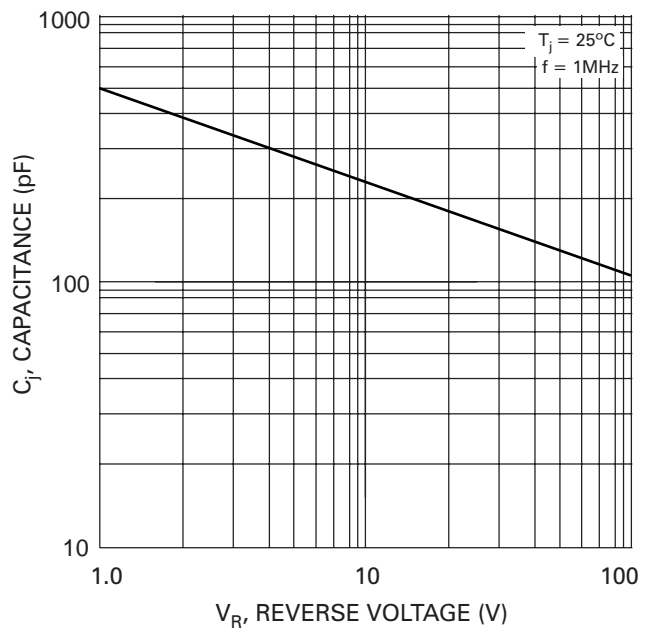


Fig. 4 Typical Junction Capacitance

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
BD2500	Press Fit	100 Units/Tray
BD2501	Press Fit	100 Units/Tray
BD2502	Press Fit	100 Units/Tray
BD2503	Press Fit	100 Units/Tray
BD2504	Press Fit	100 Units/Tray
BD2505	Press Fit	100 Units/Tray
BD2506	Press Fit	100 Units/Tray

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

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**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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