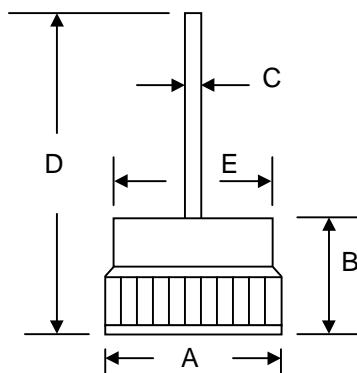


**Features**

- 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** @ $T_A=25^\circ\text{C}$  unless otherwise specified

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

For capacitive load, derate current by 20%.

Characteristic	Symbol	BD2500	BD2501	BD2502	BD2503	BD2504	BD2505	BD2506	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>								
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	300	400	500	600	V
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 @ $T_A = 150^\circ\text{C}$	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 @ $I_F = 50\text{A}$	V <sub>FM</sub>				1.18				V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I <sub>RM</sub>				10	500			$\mu\text{A}$
Typical Junction Capacitance (Note 1)	C <sub>j</sub>				300				pF
Typical Thermal Resistance Junction to Case (Note 2)	R <sub>θJC</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.

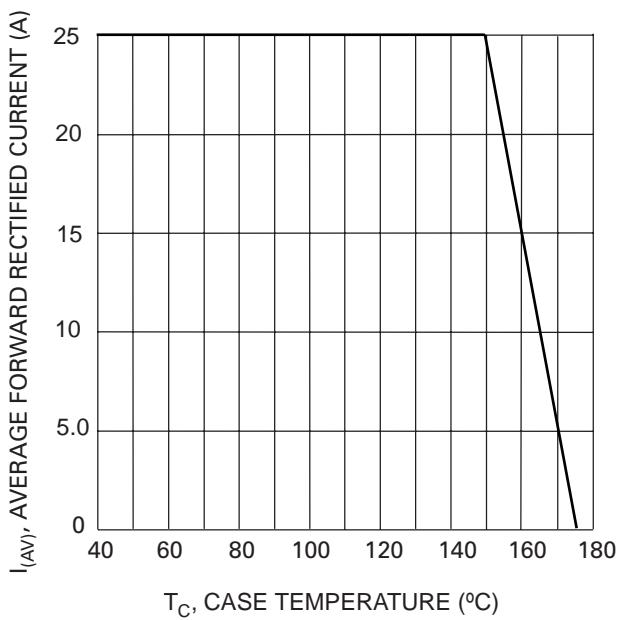


Fig. 1 Forward Current Derating Curve

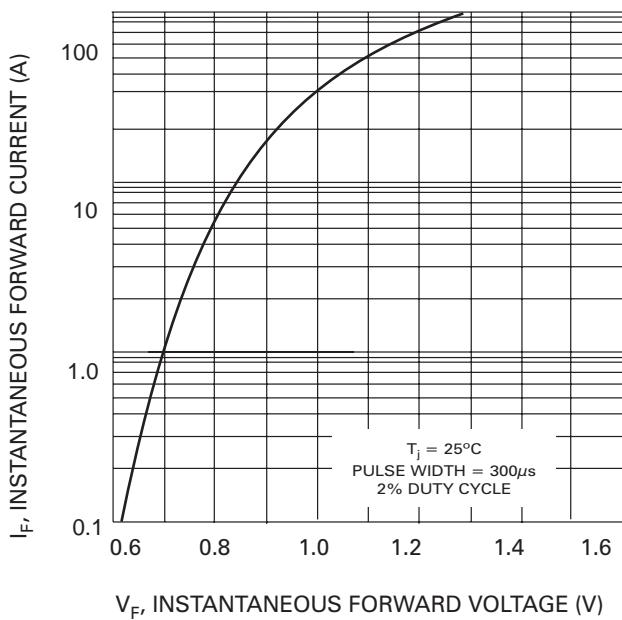


Fig. 2 Typical Forward Characteristics

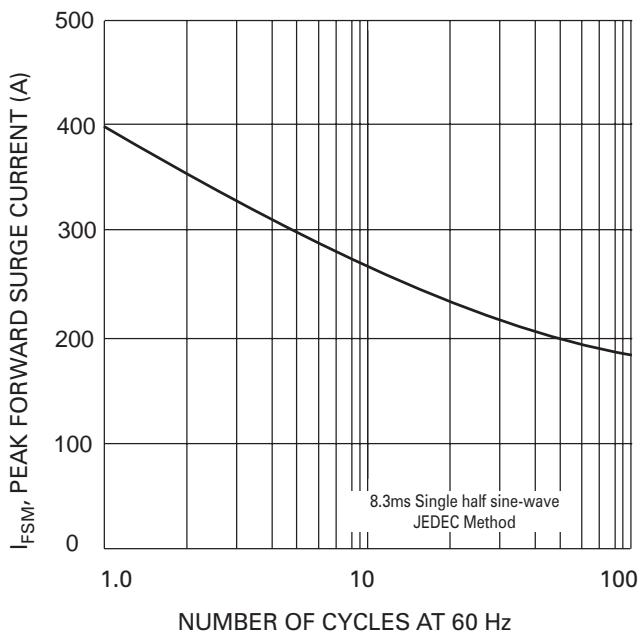


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

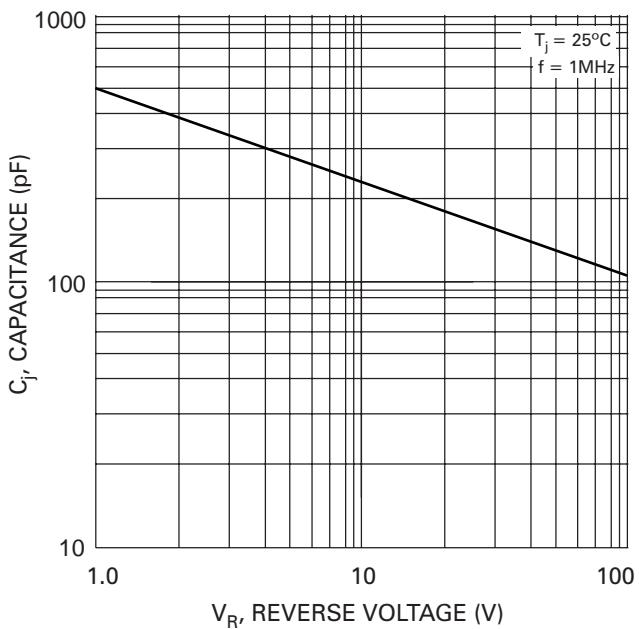


Fig. 4 Typical Junction Capacitance

## 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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