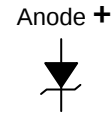
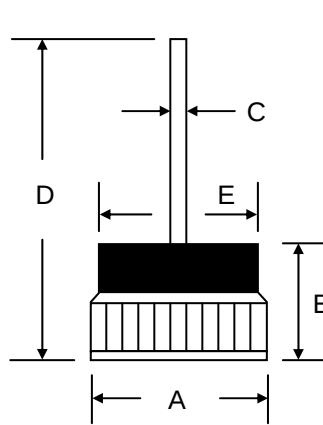


Features

- Diffused Junction
- Low Leakage
- Low Cost
- High Surge Current Capability
- Typical I_R less than 200nA

Mechanical Data

- Case: 13mm Bosch Type Press-Fit
- Terminals: Contact Areas Readily Solderable
- Polarity: Cathode to Case (Reverse Units Are Available Upon Request and Are Designated By A "R" Suffix, i.e. BD5020R or BD5024R)
- Polarity: Red Color Equals Standard, Black Color Equals Reverse Polarity
- Mounting Position: Any
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 2**



13mm Bosch		
Dim	Min	Max
A	12.80	13.20
B	9.40	—
C	1.25	1.31
D	28.00	—
E	9.90	11.10
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	BD5020	BD5024	BD5036	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	16	20	32	V
Average Rectified Output Current @ $T_C = 150^\circ\text{C}$	I_O	50			A
Breakdown Voltage Min. @ $I_R = 100\text{mA}$ Breakdown Voltage Max. @ $I_R = 100\text{mA}$	V_{BR}	20 26	24 32	36 42	V
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	500			A
Forward Voltage @ $I_F = 50\text{A}$	V_{FM}	1.0			V
Peak Reverse Current At Rated DC Blocking Voltage @ $T_A = 25^\circ\text{C}$	I_{RM}	200			nA
Typical Junction Capacitance (Note 1)	C_j	400			pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	1.0			$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175			$^\circ\text{C}$

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
BD5020	13mm Bosch Press-Fit	180 Units/Box
BD5024	13mm Bosch Press-Fit	180 Units/Box
BD5036	13mm Bosch Press-Fit	180 Units/Box

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, BD5020-LF.

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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.

Won-Top Electronics Co., Ltd.
No. 44 Yu Kang North 3rd Road,
Chine Chen Dist., Kaohsiung 806, Taiwan
Phone: 886-7-822-5408 or 886-7-822-5410
Fax: 886-7-822-5417
Email: sales@wontop.com
Internet: <http://www.wontop.com>

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