

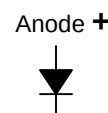
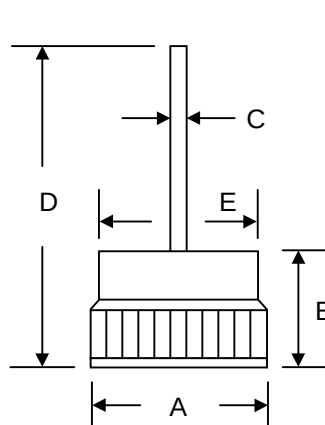
50A MOTOROLA TYPE PRESS-FIT DIODE

Features

- Diffused Junction
- Low Leakage
- Low Cost
- High Surge Current Capability
- Typical I_R less than $5.0\mu A$

Mechanical Data

- Case: 13mm Motorola 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. MD5002R or MD5004R)
- 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 Motorola		
Dim	Min	Max
A	12.80	13.20
B	7.70	8.10
C	1.25	1.31
D	25.00	—
E	11.10	11.50
All Dimensions in mm		

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

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

For capacitive load, derate current by 20%.

Characteristic	Symbol	MD5000	MD5001	MD5002	MD5003	MD5004	MD5005	MD5006	Unit
Peak Repetitive Reverse Voltage	V_{RRM}								
Working Peak Reverse Voltage	V_{RWM}	50	100	200	300	400	500	600	V
DC Blocking Voltage	V_R								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	210	280	350	420	V
Average Rectified Output Current @ $T_C = 150^\circ C$	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 @ $I_F = 50A$	V_{FM}	1.0							V
Peak Reverse Current @ $T_A = 25^\circ C$ At Rated DC Blocking Voltage @ $T_A = 100^\circ C$	I_{RM}	5.0 500							μA
Typical Junction Capacitance (Note 1)	C_j	400							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	1.0							$^\circ C/W$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175							$^\circ C$

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
MD5000	13mm Motorola Press-Fit	100 Units/Box
MD5001	13mm Motorola Press-Fit	100 Units/Box
MD5002	13mm Motorola Press-Fit	100 Units/Box
MD5003	13mm Motorola Press-Fit	100 Units/Box
MD5004	13mm Motorola Press-Fit	100 Units/Box
MD5005	13mm Motorola Press-Fit	100 Units/Box
MD5006	13mm Motorola Press-Fit	100 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, MD5000-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.

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