

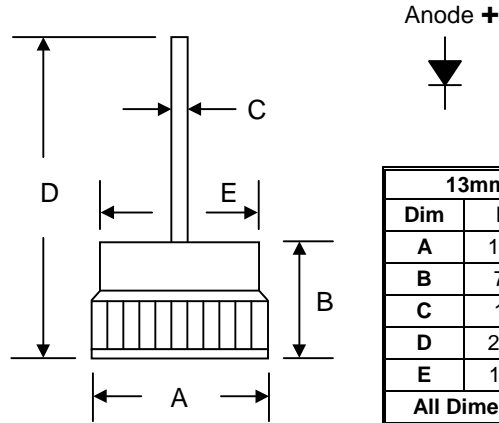
## 50A MOTOROLA TYPE PRESS-FIT DIODE

### Features

- Diffused Junction
- Low Leakage
- Low Cost
- High Surge Current Capability
- Typical IR less than 5.0μA

### 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<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	MD5000	MD5001	MD5002	MD5003	MD5004	MD5005	MD5006	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>C</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> = 50A	V <sub>FM</sub>	1.0							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>	5.0 500							μA
Typical Junction Capacitance (Note 1)	C <sub>j</sub>	400							pF
Typical Thermal Resistance (Note 2)	R <sub>θJC</sub>	1.0							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175							°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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*We power your everyday.*