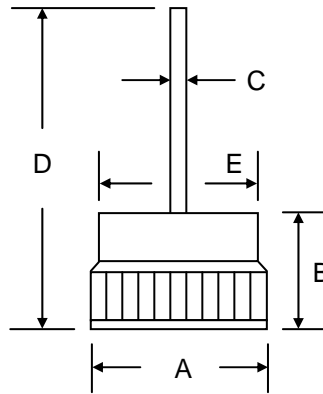


## Features

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

## 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. MD5020R or MD5024R)
- 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**



Anode +



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

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.


Characteristic	Symbol	MD5020	MD5024	MD5036	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	16	20	32	V
Working Peak Reverse Voltage	$V_{RWM}$				
DC Blocking Voltage	$V_R$				
Average Rectified Output Current @ $T_C = 150^\circ\text{C}$	$I_O$	50			A
Breakdown Voltage Min. @ $I_R = 100\text{mA}$	$V_{BR}$	20	24	36	V
Breakdown Voltage Max. @ $I_R = 100\text{mA}$		26	32	42	
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)	$R_{JC}$	1.0			$^\circ\text{C}/\text{W}$
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
MD5020	13mm Motorola Press-Fit	180 Units/Box
MD5024	13mm Motorola Press-Fit	180 Units/Box
MD5036	13mm Motorola 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, MD5020-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.*