

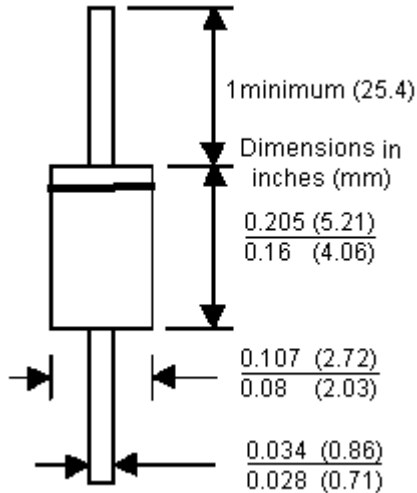
# General Purpose Rectifiers



DO-41

### Features:

- Low forward voltage drop
- High current capability



Colour Band Denotes Cathode

Dimensions : Inches (Millimetres)

### Absolute Maximum Ratings\* $T_A = 25^\circ\text{C}$ unless otherwise noted

Parameter	Symbol	Value	Units
Average Rectified Current 0.375 Inches Lead Length at $T_A = 75^\circ\text{C}$	$I_O$	1	A
Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave Superimposed on Rated Load (JEDEC Method)	$i_f$ (surge)	30	
Total Device Dissipation Derate above $25^\circ\text{C}$	$P_D$	2.5 20	W mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	50	$^\circ\text{C}/\text{W}$
Storage Temperature Range	$T_{stg}$	-55 to +175	$^\circ\text{C}$
Operating Junction Temperature	$T_J$	-55 to +150	

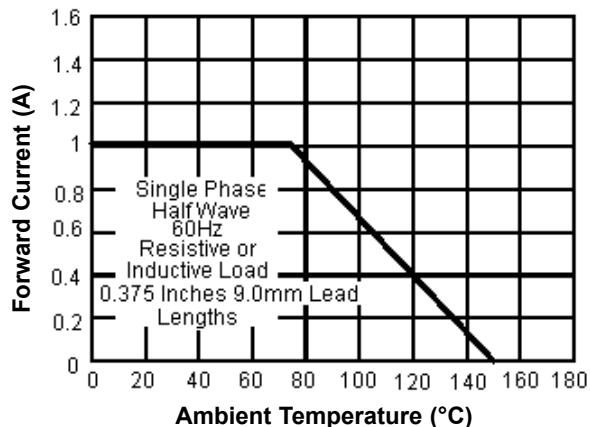
\*These Ratings are Limiting Values above Which the Serviceability of Any Semiconductor Device may be Impaired.

### Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

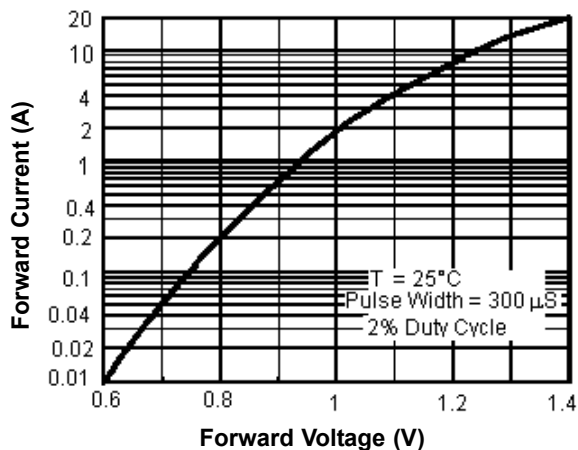
Parameter	Device					Unit
	4001	4002	4003	4005	4006	
Peak Repetitive Reverse Voltage	50	100	200	600	1,000	V
Maximum RMS Voltage	35	70	140	420	700	
DC Reverse Voltage (Rated $V_R$ )	50	100	200	600	1,000	
Maximum Reverse Current at Rated $V_R$ $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	5 500					$\mu\text{A}$
Maximum Forward Voltage at 1 A	1.1					V
Maximum Full Load Reverse Current, Full Cycle $T_A = 75^\circ\text{C}$	30					$\mu\text{A}$
Typical Junction Capacitance $V_R = 4\text{ V}$ , $f = 1\text{ MHz}$	15					pF

## Typical Characteristics

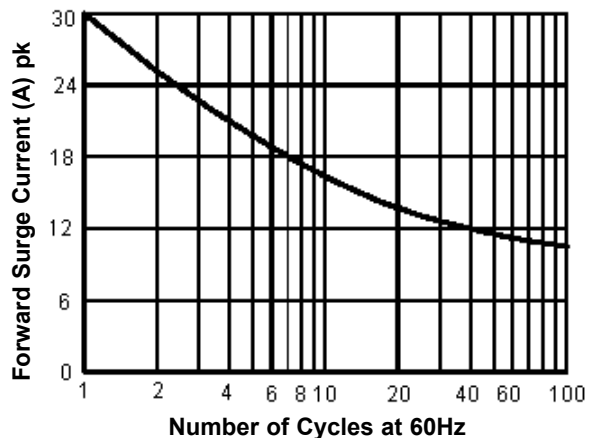
Forward Current Derating Curve



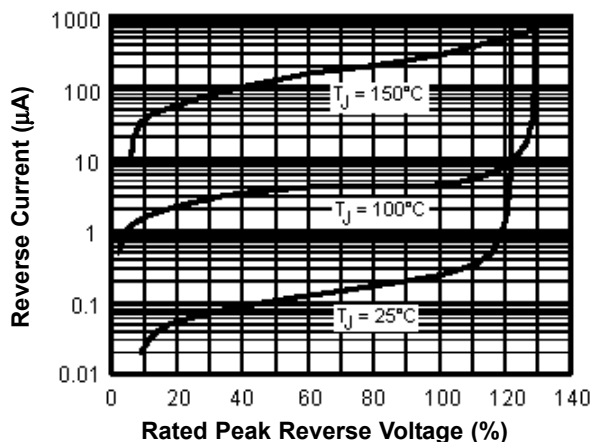
Forward Characteristics



Non-Repetitive Surge Current



Reverse Characteristics



## Part Number Table

Description	Part Number
Diode, 1 A, 50V Reel 5K	1N4001 R0
Diode, 1 A, 100 V Reel 5K	1N4002 R0
Diode, 1 A, 200 V Reel 5K	1N4003 R0
Diode, 1 A, 800 V Reel 5K	1N4006 R0
Diode, Standard, 1 A, 50 V	1N4001
Diode, Standard, 1 A, 100 V	1N4002
Diode, Standard, 1 A, 200 V	1N4003
Diode, Standard, 1 A, 600 V	1N4005
Diode, Standard, 1 A, 800 V	1N4006

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