

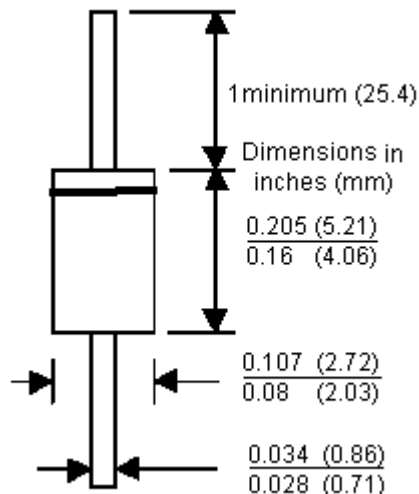
General Purpose Rectifiers



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)	$i_f(\text{surge})$	30	
Total Device Dissipation Derate above 25°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

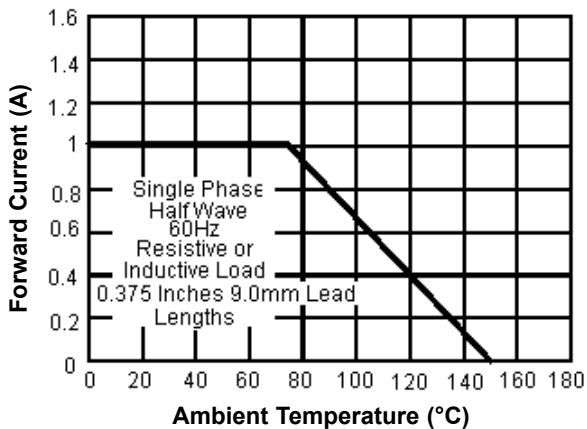
Parameter	Device					Unit
	4001	4002	4003	4005	4006	
Peak Repetitive Reverse Voltage	50	100	200	600	1,000	V
Maximum RMS Voltage	35	70	140	420	700	
DC Reverse Voltage (Rated V_R)	50	100	200	600	1,000	
Maximum Reverse Current at Rated V_R $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	5 500					μA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

General Purpose Rectifiers

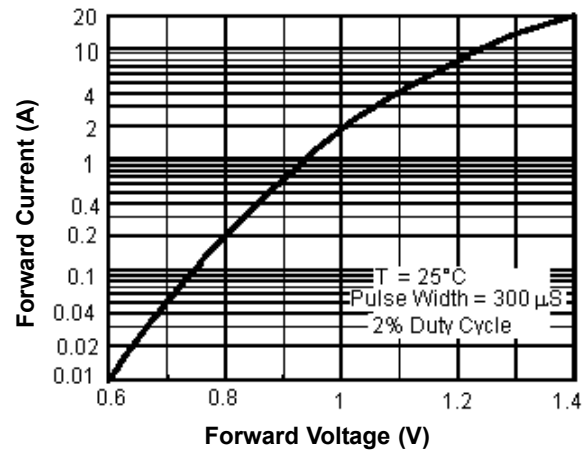


Typical Characteristics

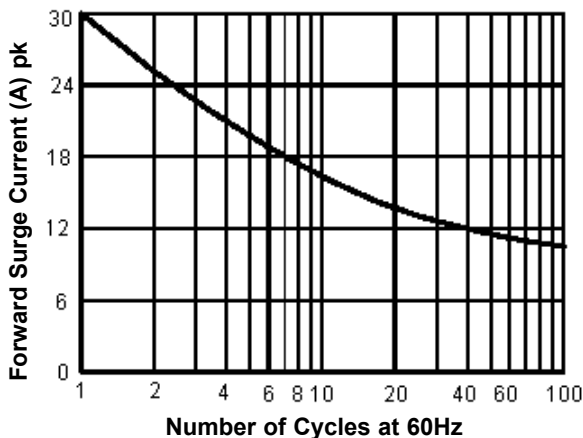
Forward Current Derating Curve



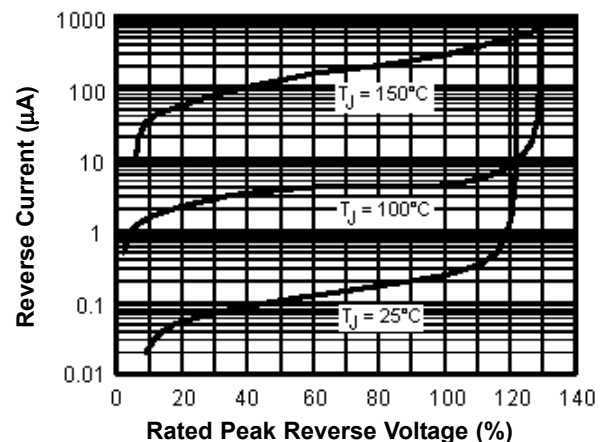
Forward Characteristics



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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