

1N4001 - 1N4007

Features

- Low forward voltage drop.
- High surge current capability.



DO-41
COLOR BAND DENOTES CATHODE

1.0 Ampere General Purpose Rectifiers

Absolute Maximum Ratings* T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
I _{F(AV)}	Average Rectified Current .375" lead length @ T _A = 75°C	1.0	A
I _{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	30	A
P _D	Total Device Dissipation Derate above 25°C	2.5 20	W mW/°C
R _{θJA}	Thermal Resistance, Junction to Ambient	50	°C/W
T _{stg}	Storage Temperature Range	-55 to +175	°C
T _J	Operating Junction Temperature	-55 to +150	°C

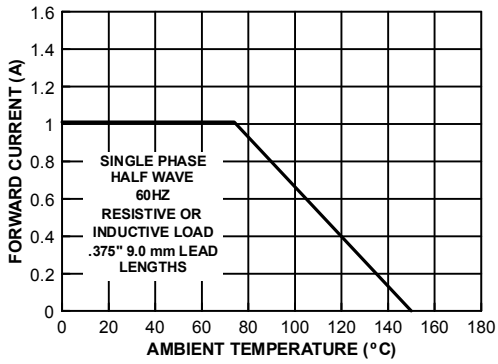
*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Electrical Characteristics T_A = 25°C unless otherwise noted

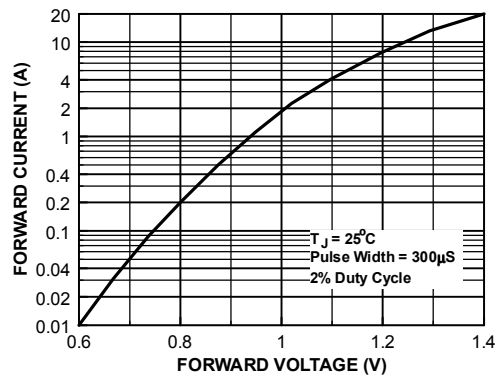
Symbol	Parameter	Device							Units
		4001	4002	4003	400	400	4006	4007	
V _{RRM}	Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
V _{RMS}	Maximum RMS Voltage	35	70	140	280	420	560	700	V
V _R	DC Reverse Voltage (Rated V _R)	50	100	200	400	600	800	1000	V
I _{RM}	Maximum Instantaneous Reverse Current @ rated V _R T _A = 25°C T _A = 100°C	5.0 500							μA μA
V _{FM}	Maximum Instantaneous Forward Voltage @ 1.0 A	1.1							V
I _{rr}	Maximum Full Load Reverse Current, Full Cycle T _A = 75°C	30							μA
C	Typical Junction Capacitance V _R = 4.0 V, f = 1.0 MHz	15							pF

Typical Characteristics

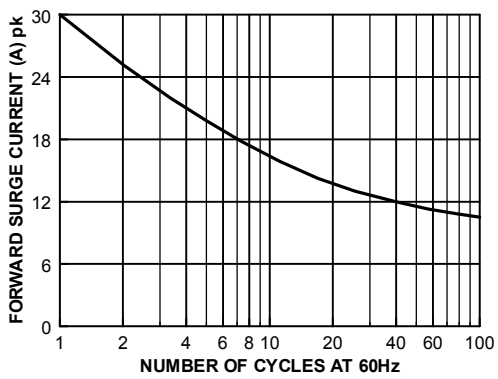
Forward Current Derating Curve



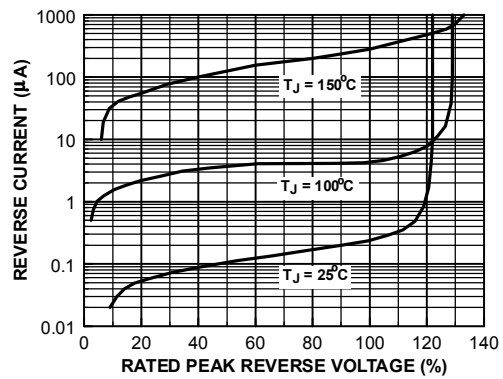
Forward Characteristics



Non-Repetitive Surge Current



Reverse Characteristics



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