1N4001-G Thru. 1N4007-G

Voltage: 50 to 1000 V
Current: 1.0 A
RoHS Device

Features

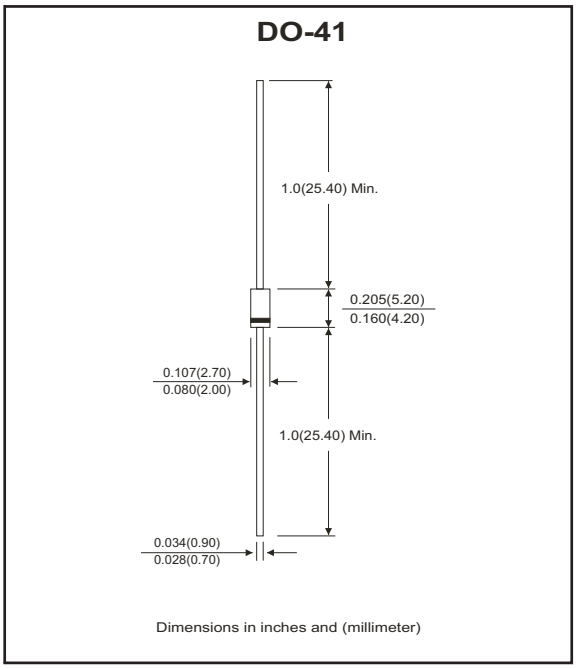
-Low cost construction.

-Fast forward voltage drop.

-Low reverse leakage.

-High forward surge current capability.

-High soldering temperature guarantee: 260 °C/10 seconds, 0.375”(9.5mm) lead length at 5lbs(2.3kg) tension.



Mechanical data

-Case: transfer molded plastic, DO-41

-Epoxy: UL 94V-0 rate flame retardant

-Polarity: Indicated by cathode band

-Lead: Plated axial lead, solderable per MIL-STD-202E, method 208C

-Mounting position: Any

-Weight: 0.012ounce, 0.33 grams

Electrical Characteristics (at TA=25°C unless otherwise noted)

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load derate current by 20%.

Parameter	Symbol	1N4001 -G	1N4002 -G	1N4003 -G	1N4004 -G	1N4005 -G	1N4006 -G	1N4007 -G	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 0.375"(9.5mm) Lead Length @T_A=55 °C	$I_{(AV)}$	1.0							A
Peak Forward Surge Current, 8.3mS single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage @1.0A	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking voltage per element T_A=25 °C	I_R	5.0							μA
T_A=100 °C		50							
Maximum Full Load Reverse Current,full cycle average 0.375”(9.5mm)lead length at T_L=75 °C	$I_{R(AV)}$	30							μA
Typical Junction Capacitance (Note 1)	C_J	15							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	60							°C/W
Operating Temperature Range	T_J	-55 ~ +150							°C
Storage Ttemperature Range	T_{STG}	-55 ~ +150							°C

NOTES:
1. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.
2. Thermal Resistance from junction to terminal 6.0mm^{2}copper pads to each terminal.

Rating and Characteristic Curves (1N4001-G Thru. 1N4007-G)

Fig.1 Typical Forward Current Derating Curve

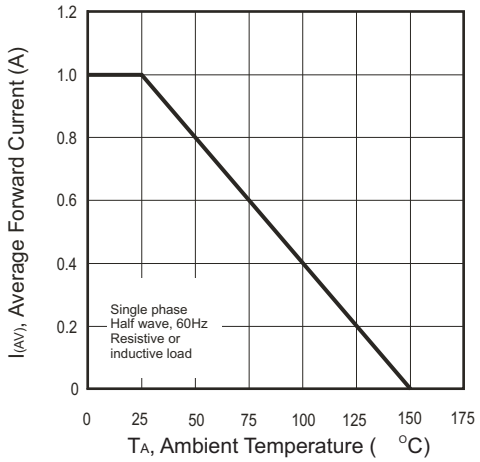


Fig.2 Maximum. Non-Repetitive Peak Forward Surge Current

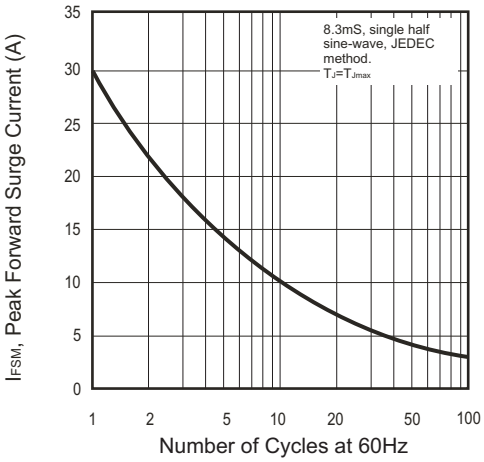


Fig.3 Typical Instantaneous Forward Characteristics

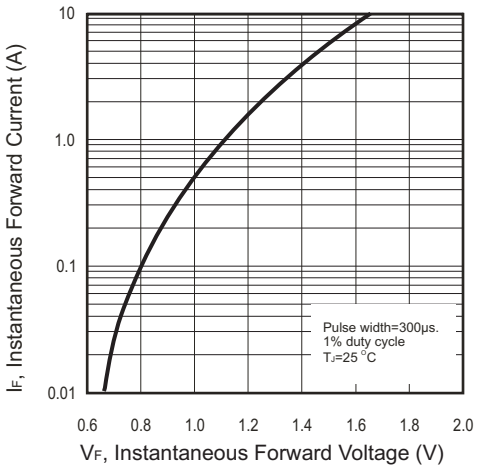


Fig.4 Typical Reverse Characteristics

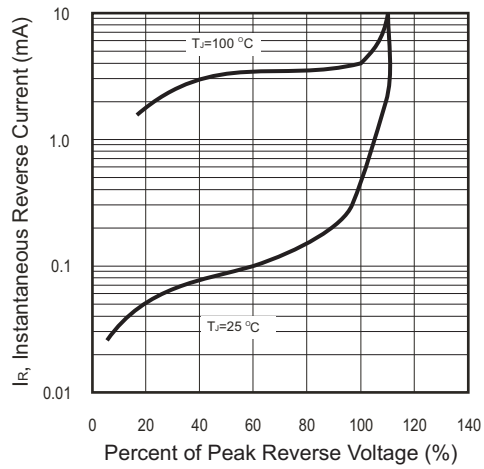
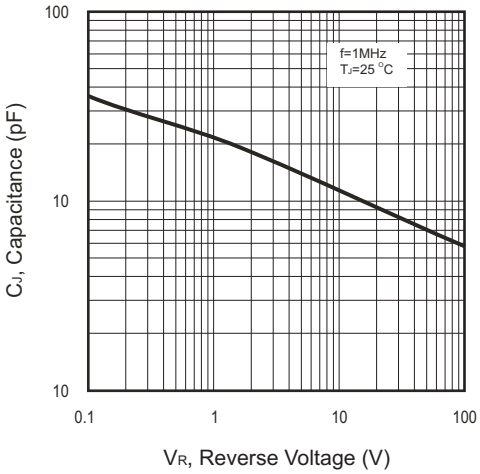


Fig.5 Typical Junction Capacitance



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