

1N4001-G Thru. 1N4007-G

Voltage: 50 to 1000 V

Current: 1.0 A

RoHS Device

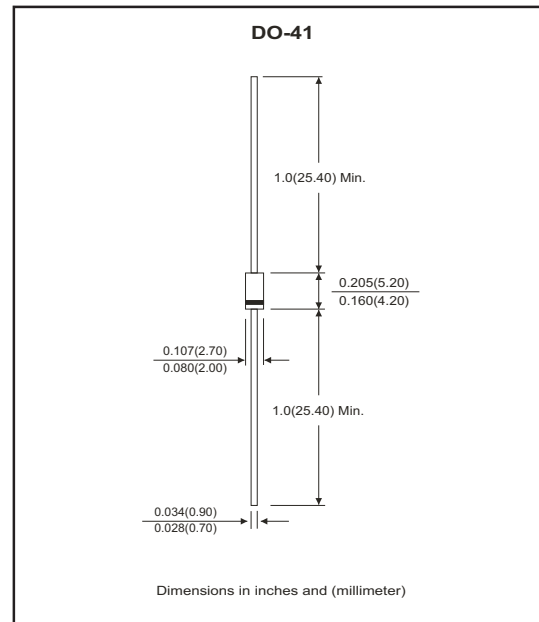


Features

- 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 $T_A=25\text{ }^\circ\text{C}$ 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 @ $T_A=55\text{ }^\circ\text{C}$	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	$T_A=25\text{ }^\circ\text{C}$	5.0							μA
	$T_A=100\text{ }^\circ\text{C}$	50							
Maximum Full Load Reverse Current,full cycle average 0.375"(9.5mm)lead length at $T_L=75\text{ }^\circ\text{C}$	$I_{R(AV)}$	30							μA
Typical Junction Capacitance (Note 1)	C_J	15							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	60							$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-55 ~ +150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150							$^\circ\text{C}$

NOTES:

1. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.
2. Thermal Resistance from junction to terminal 6.0mm² copper pads to each terminal.

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

Fig.1 Typical Forward Current Derating Curve

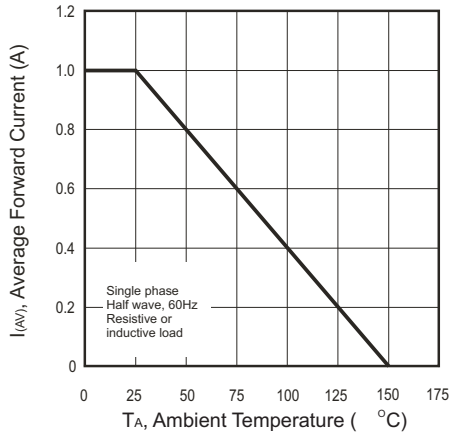


Fig.2 Maximum. Non-Repetitive Peak Forward Surge Current

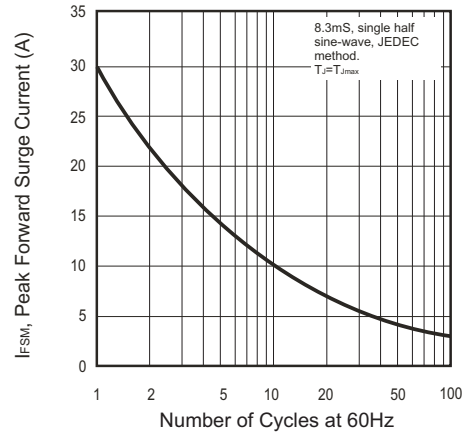


Fig.3 Typical Instantaneous Forward Characteristics

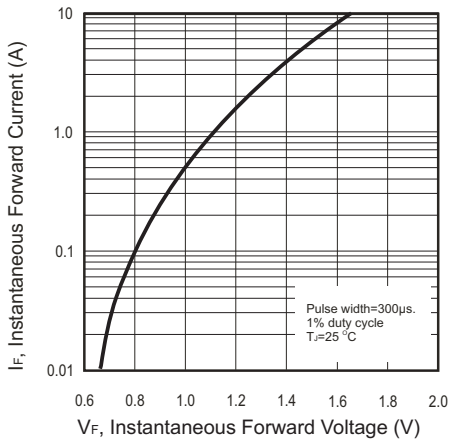


Fig.4 Typical Reverse Characteristics

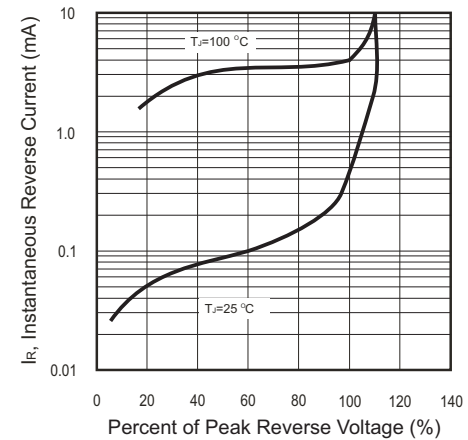


Fig.5 Typical Junction Capacitance

