

General Purpose Silicon Rectifiers

1N4001-G Thru. 1N4007-G

Voltage: 50 to 1000 V

Current: 1.0 A

RoHS Device

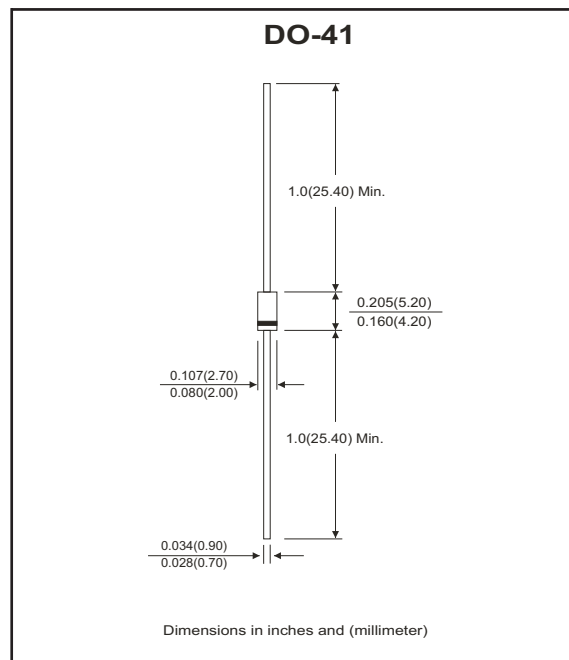


Features

- 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%.

2761101

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 _{θJA}	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 6.0mm²copper pads to each terminal.

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

Fig.1 Typical Forward Current Derating Curve

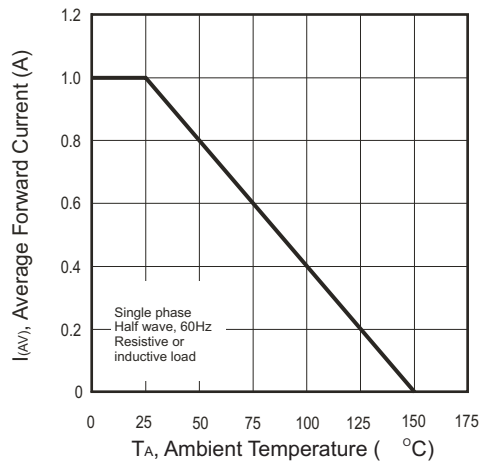


Fig.2 Maximum. Non-Repetitive Peak Forward Surge Current

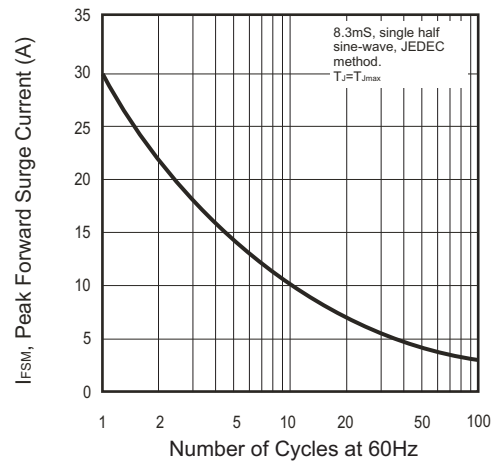


Fig.3 Typical Instantaneous Forward Characteristics

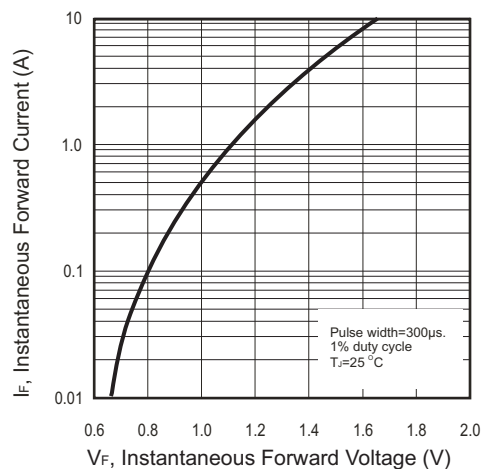


Fig.4 Typical Reverse Characteristics

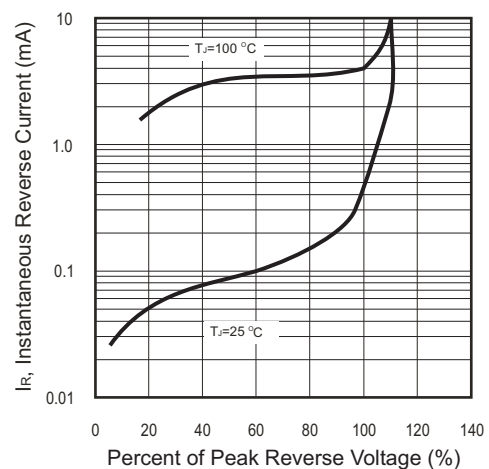


Fig.5 Typical Junction Capacitance

