

1N4001-G Thru. 1N4007-G

Voltage: 50 to 1000 V

Current: 1.0 A

RoHS Device

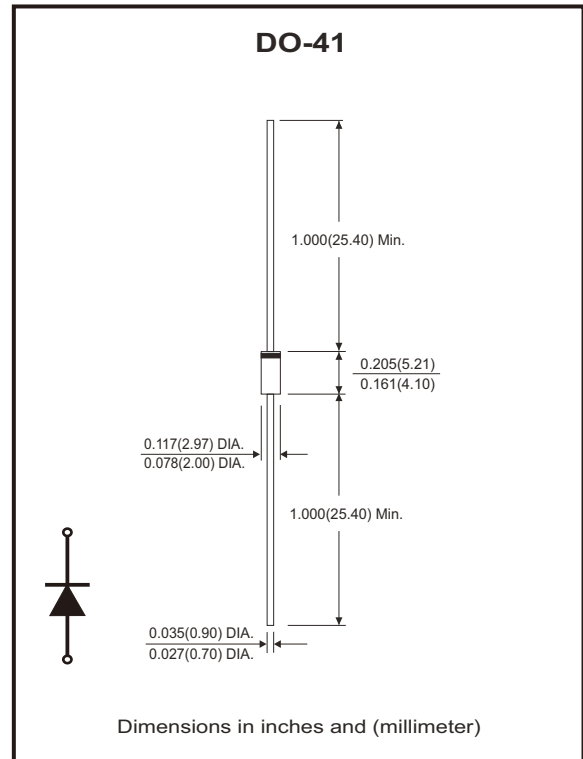


Features

- 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-750, method 2026
- Mounting position: Any
- Weight: 0.012ounce, 0.34 grams(approx.).



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 @TA=55°C	I <sub(av)< sub=""></sub(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	TA=25°C	5.0							µA
	TA=100°C	50							
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 Temperature 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 ambient and junction to lead at 0.375"(9.5mm) lead length P.C.B mounted.

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

Fig.1 - Typical Forward Current Derating Curve

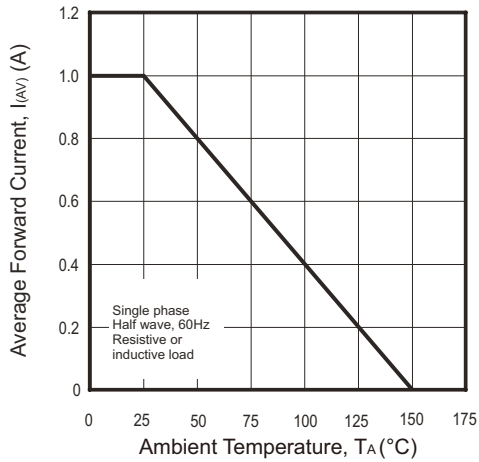


Fig.2 - Maximum. Non-Repetitive Peak Forward Surge Current

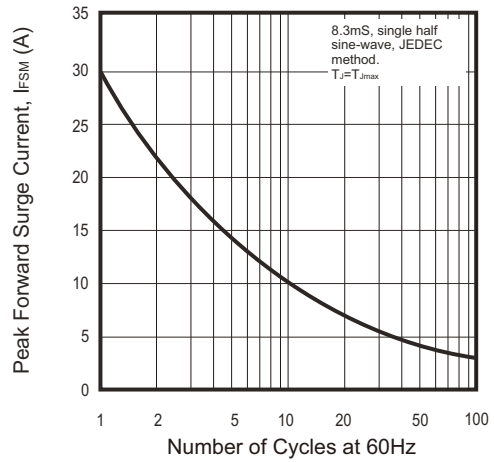


Fig.3 - Typical Instantaneous Forward Characteristics

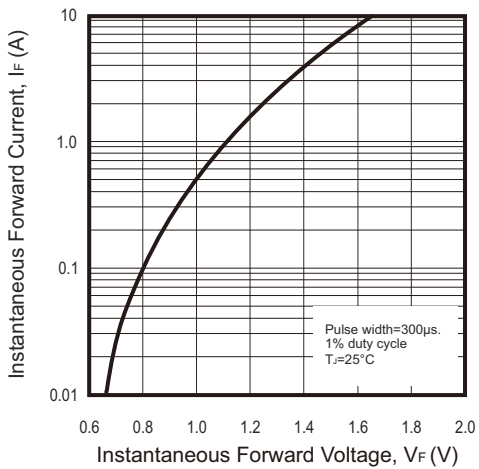


Fig.4 - Typical Reverse Characteristics

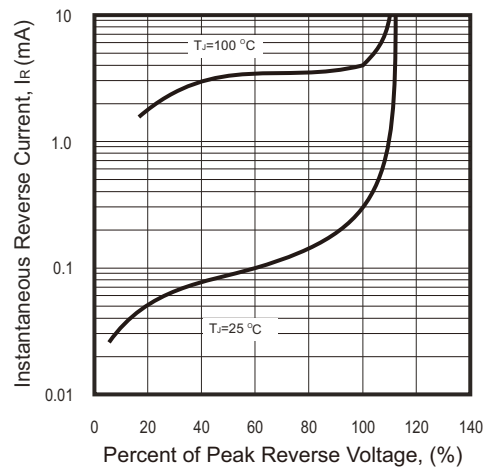
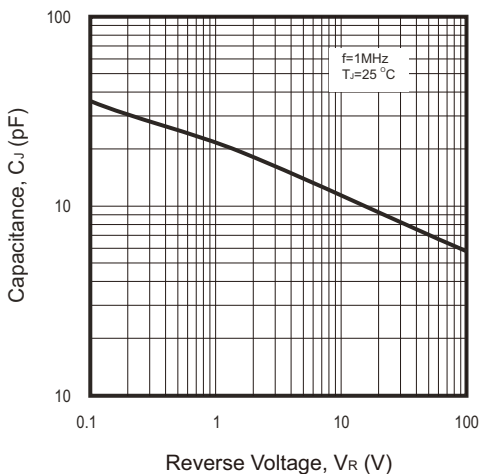


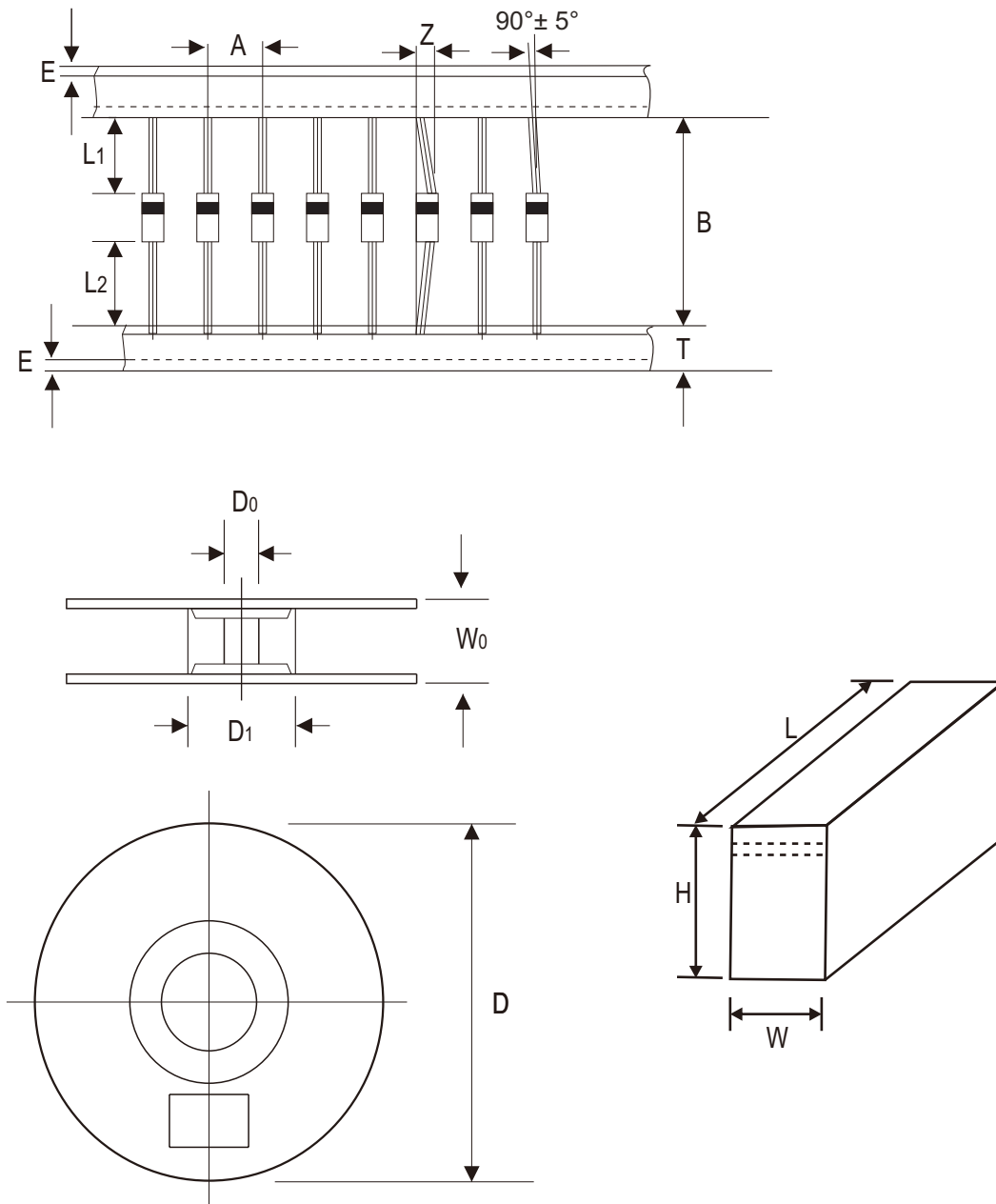
Fig.5 - Typical Junction Capacitance



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Taping Specification For Axial Lead Diodes



DO-41	SYMBOL	A	B	Z	T	E	L1-L2
	(mm)	5.00 ± 0.50	52.40 ± 1.50	1.60 (max)	6.00 ± 0.40	3.00 (max)	1.00 (max)
	(inch)	0.197 ± 0.020	2.063 ± 0.059	0.063 (max)	0.236 ± 0.016	0.118 (max)	0.039 (max)

DO-41	SYMBOL	D1	D0	D	W0	L	W	H
	(mm)	85.70 ± 0.30	16.60 ± 0.40	330.00	72.00 ± 3.00	260.00 ± 5.00	75.00 ± 5.00	150.00 ± 5.00
	(inch)	3.374 ± 0.012	0.654 ± 0.016	12.992	2.835 ± 0.118	10.236 ± 0.197	2.953 ± 0.197	5.906 ± 0.197

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