

1N4001GP-HF Thru. 1N4007GP-HF

Voltage: 50 to 1000 V

Current: 1.0 A

RoHS Device

Halogen Free

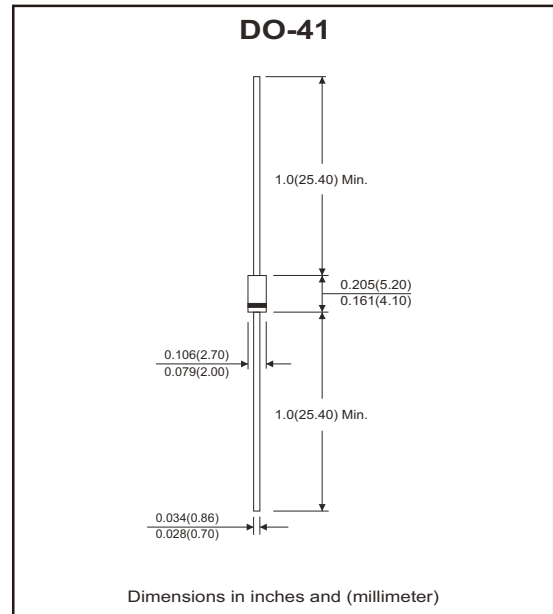


Features

- High reliability.
- Low leakage.
- Low forward voltage drop.
- High current capability.
- Glass passivated junction.

Mechanical data

- Case: molded plastic.
- Epoxy: Device has UL flammability classification 94V-0.
- Lead: MIL-STD-202E method 208C guaranteed.
- Mounting position: Any.



Circuit Diagram



Maximum Ratings and Electrical Characteristics

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	1N4001GP-HF	1N4002GP-HF	1N4003GP-HF	1N4004GP-HF	1N4005GP-HF	1N4006GP-HF	1N4007GP-HF	Unit
Maximum recurrent 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 see figure 1	$I_{(AV)}$	1							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30							A
Max. instantaneous forward voltage @ $I_F=1A$	V_F	1.0							V
Maximum DC reverse current $T_J = 25^\circ C$ at rated DC blocking voltage $T_J = 150^\circ C$	I_R	0.2 400							μA
Typical junction capacitance @ $V_R=4V$, $f=1MHz$	C_J	15							pF
Typical thermal resistance, junction to ambient	$R_{\theta JA}$	50							$^\circ C/W$
Operating junction temperature range	T_J	$-65 \sim +175$							$^\circ C$
Storage temperature range	T_{STG}	$-65 \sim +175$							$^\circ C$

Notes: Measured at 1MHz and applied reverse voltage of 4.0 volts.

Rating and Characteristic Curves (1N4001GP-HF Thru. 1N4007GP-HF)

Fig.1 - Forward Current Derating Curve

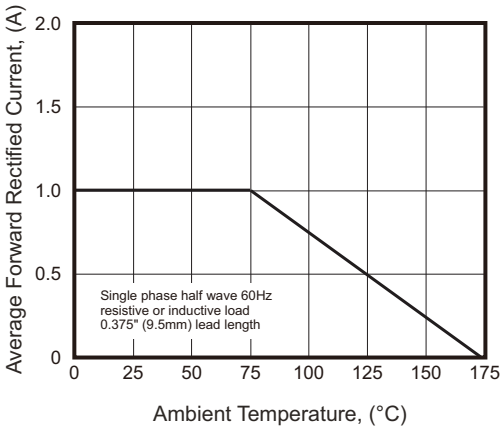


Fig.2 - Max. Non-Repetitive Peak Forward Surge Current

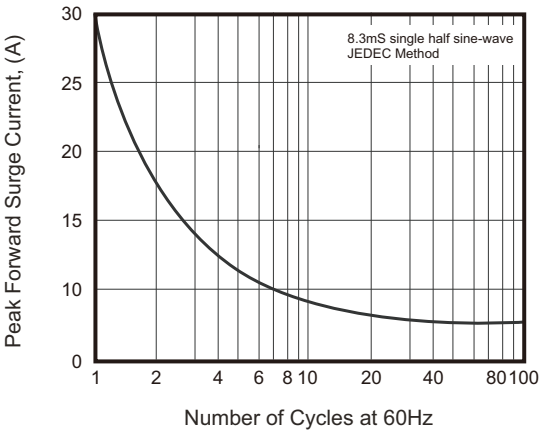


Fig.3 - Typical Instantaneous Forward Characteristics

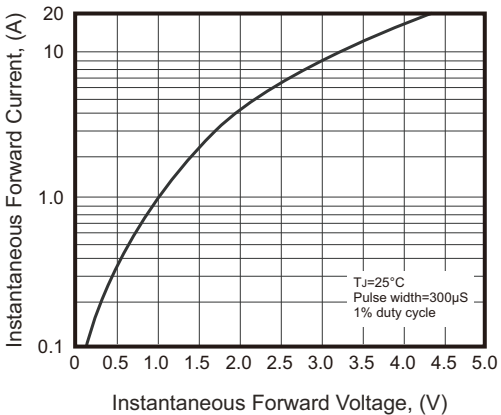


Fig.4 - Typical Reverse Characteristics

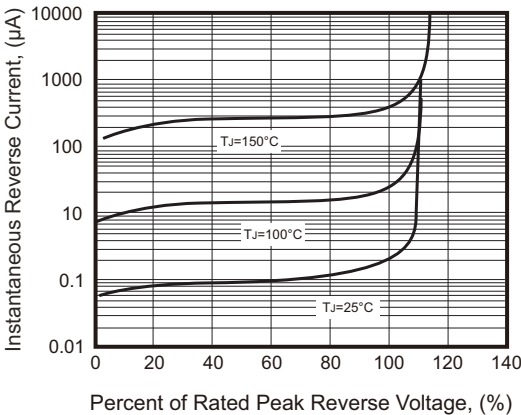
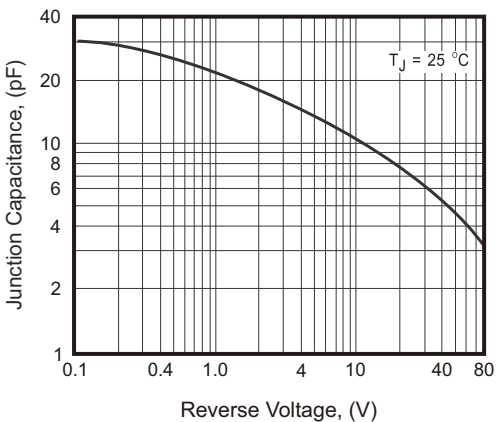
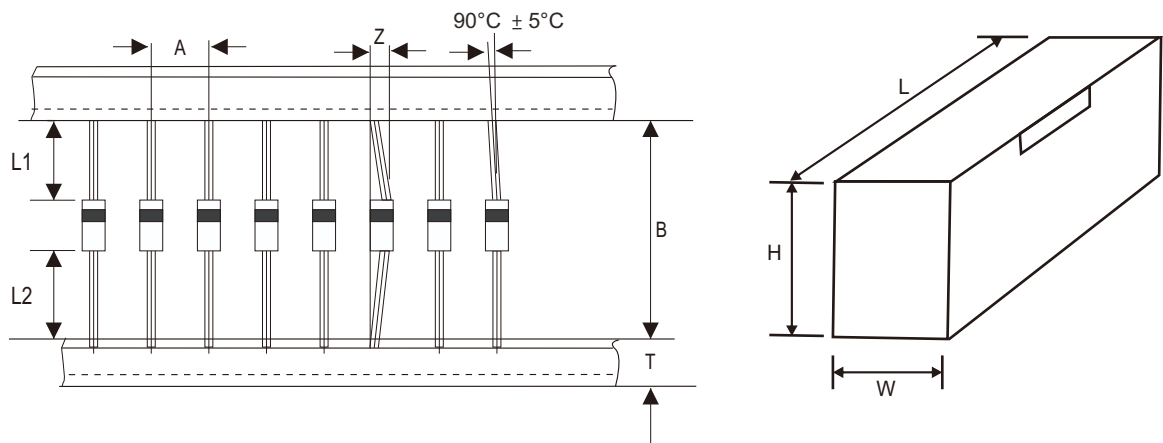


Fig.5 - Typical Junction Capacitance



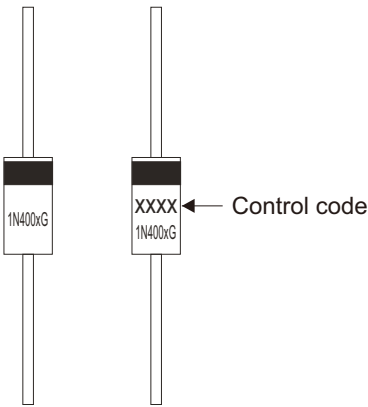
Taping Specification For Axial Lead Diodes



DO-41	SYMBOL	A	B	Z	T	L1-L2	
	(mm)	5.00 ± 0.50	52.00 ± 0.50	1.20 (max)	6.00 ± 0.40	1.00 (max)	
	(inch)	0.197 ± 0.020	2.047 ± 0.020	0.047 (max)	0.236 ± 0.016	0.039 (max)	
DO-41	SYMBOL	L	W	H			
	(mm)	255.00 ± 10.00	73.00 ± 10.00	100.00 ± 10.00			
	(inch)	10.036 ± 0.394	2.874 ± 0.394	3.937 ± 0.394			

Marking Code

Part Number	Marking Code
1N4001GP-HF	1N4001G
1N4002GP-HF	1N4002G
1N4003GP-HF	1N4003G
1N4004GP-HF	1N4004G
1N4005GP-HF	1N4005G
1N4006GP-HF	1N4006G
1N4007GP-HF	1N4007G



x = Product type marking code

Standard Packaging

Case Type	AMMO PACK
	BOX (pcs)
DO-41	3,000