

## 1N4001GP-HF Thru. 1N4007GP-HF

Voltage: 50 to 1000 V

Current: 1.0 A

RoHS Device

Halogen Free

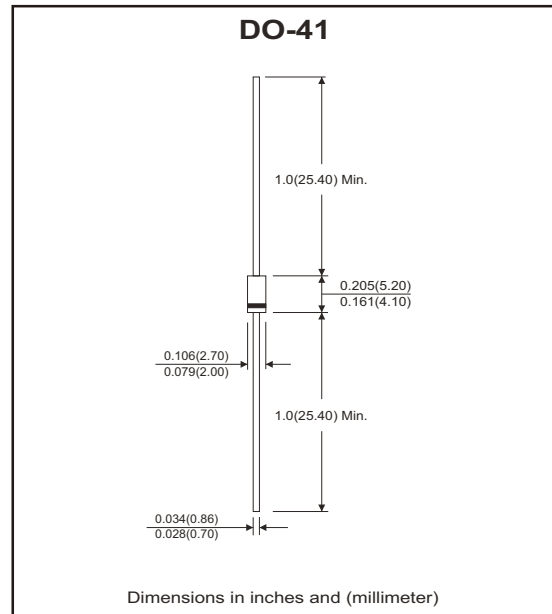


### Features

- 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 <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified current see figure 1	I <sub>(AV)</sub>	1							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	30							A
Max. instantaneous forward voltage @ I <sub>F</sub> =1A	V <sub>F</sub>	1.0							V
Maximum DC reverse current T <sub>j</sub> = 25°C at rated DC blocking voltage T <sub>j</sub> = 150°C	I <sub>R</sub>	0.2 400							μA
Typical junction capacitance @V <sub>R</sub> =4V, f=1MHz	C <sub>J</sub>	15							pF
Typical thermal resistance, junction to ambient	R <sub>θJA</sub>	50							°C/W
Operating junction temperature range	T <sub>J</sub>	-65 ~ +175							°C
Storage temperature range	T <sub>STG</sub>	-65 ~ +175							°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

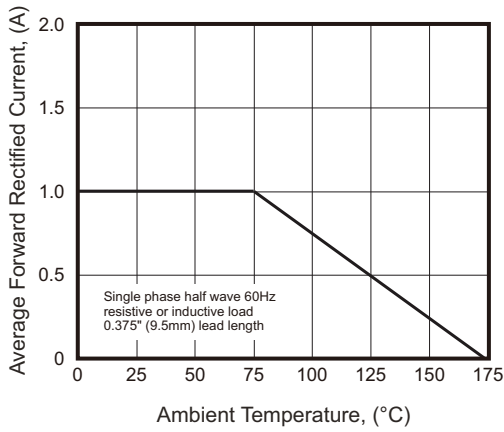


Fig.2 - Max. Non-Repetitive Peak Forward Surge Current

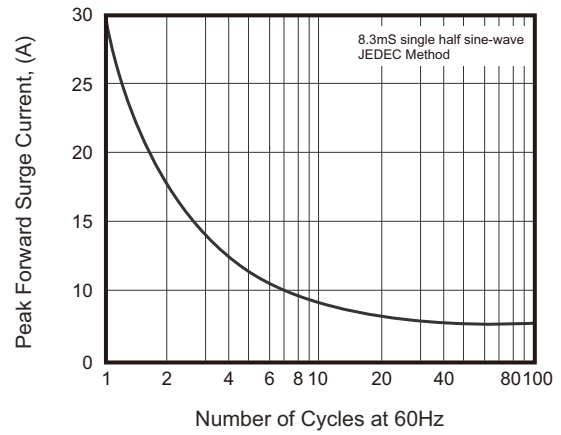


Fig.3 - Typical Instantaneous Forward Characteristics

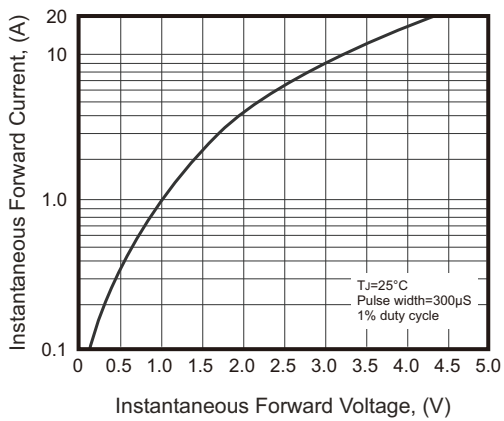


Fig.4 - Typical Reverse Characteristics

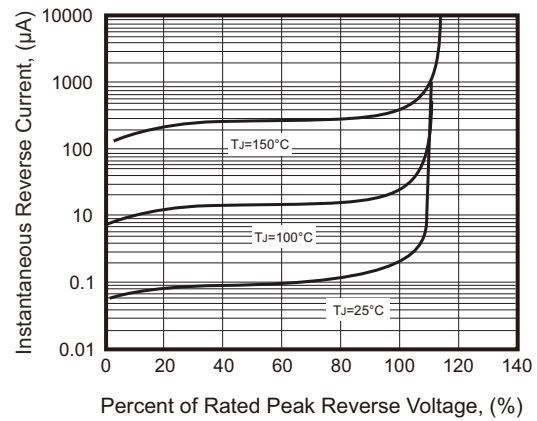
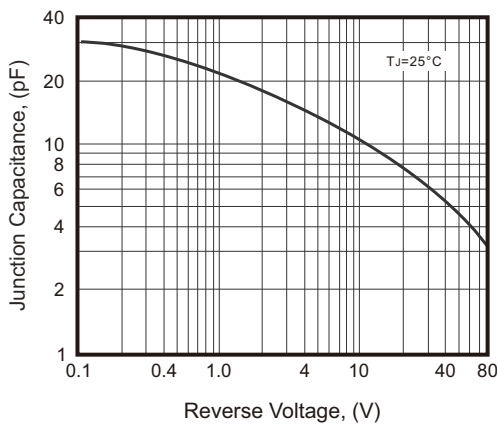
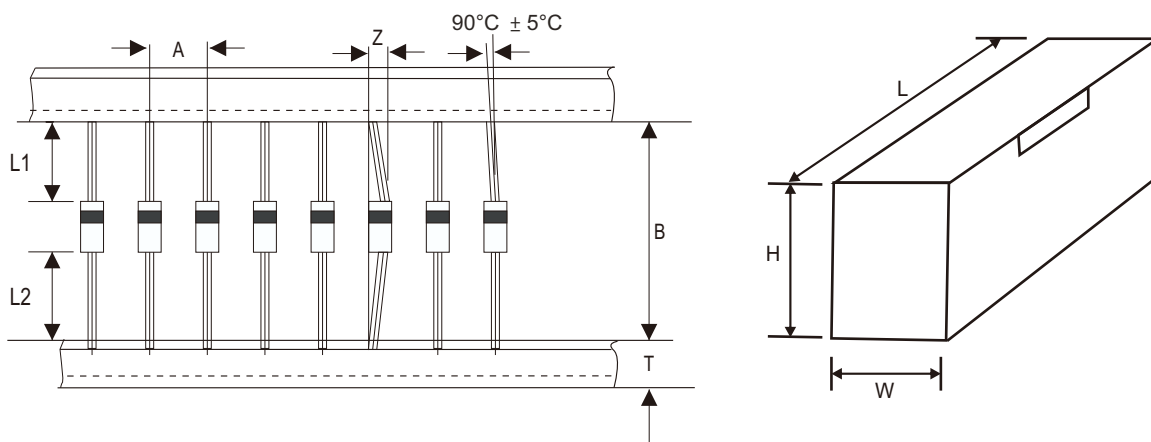


Fig.5 - Typical Junction Capacitance



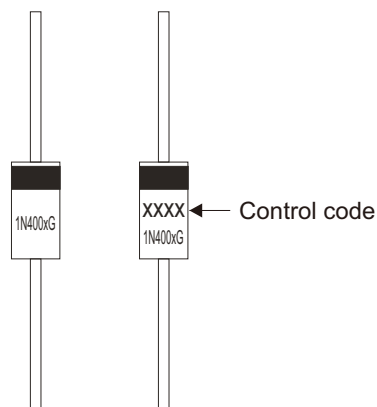
## Taping Specification For Axial Lead Diodes



DO-41	SYMBOL	A	B	Z	T	L1-L2	
	(mm)	5.00 ± 0.50	52.40 ± 1.50	1.20 (max)	6.00 ± 0.50	1.00 (max)	
	(inch)	0.197 ± 0.020	2.063 ± 0.059	0.047 (max)	0.236 ± 0.020	0.039 (max)	
DO-41	SYMBOL	L	W	H			
	(mm)	255.00 ± 5.00	75.00 ± 5.00	150.00 ± 5.00			
	(inch)	10.039 ± 0.197	2.953 ± 0.197	5.906 ± 0.197			

## 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	5,000