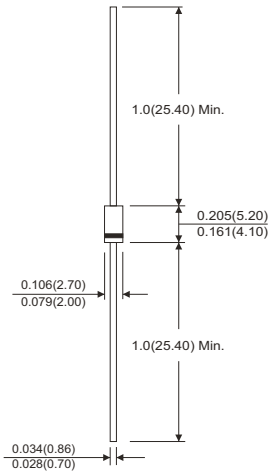
Glass Passivated Junction Plastic Rectifier

Comchip
SMD Diode Specialist

1N4001GP-HF Thru. 1N4007GP-HF

Voltage: 50 to 1000 V
Current: 1.0 A
RoHS Device
Halogen Free

DO-41



Dimensions in inches and (millimeter)

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°C at rated DC blocking voltage T_j = 150°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							°C/W
Operating junction temperature range	T_J	-65 ~ +175							°C
Storage temperature range	T_{STG}	-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

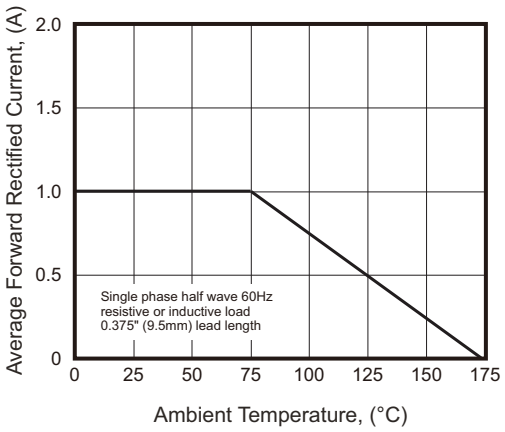


Fig.2 - Max. Non-Repetitive Peak Forward Surge Current

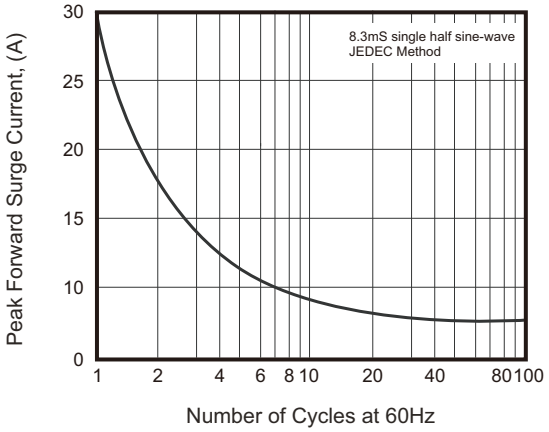


Fig.3 - Typical Instantaneous Forward Characteristics

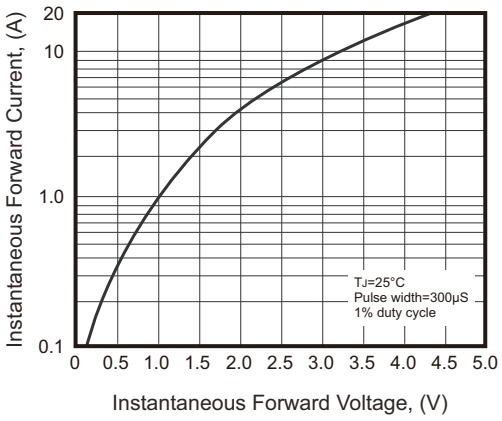


Fig.4 - Typical Reverse Characteristics

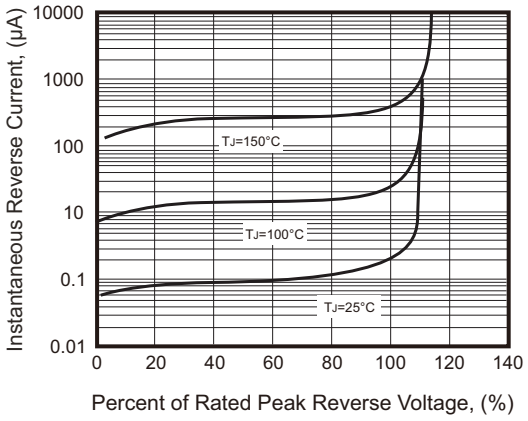
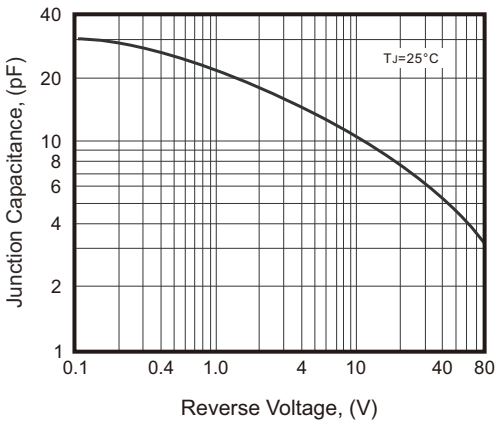
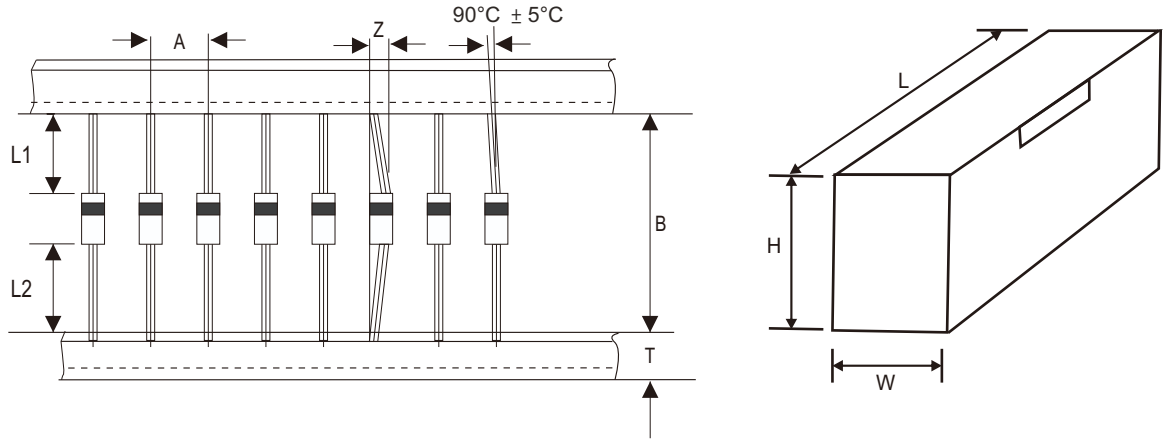


Fig.5 - Typical Junction Capacitance



Taping Specification For Axial Lead Diodes

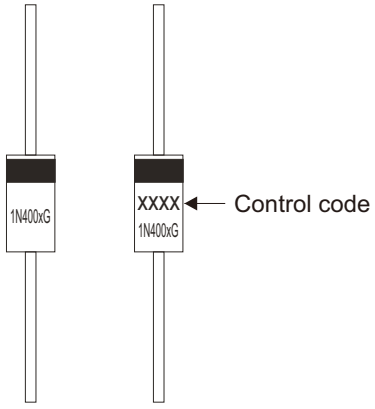


DO-41	SYMBOL	A	B	Z	T	|L1-L2|	
	(mm)	5.00 ± 0.50	52.40 ± 1.50	1.20 (max)	6.00 ± 0.50	1.00 (max)	
	(inch)	0.197 ± 0.020	2.063 ± 0.059	0.047 (max)	0.236 ± 0.020	0.039 (max)	

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