

## 1N4007GP-HF

**Voltage: 1000 V**

**Current: 1.0 A**

**RoHS Device**

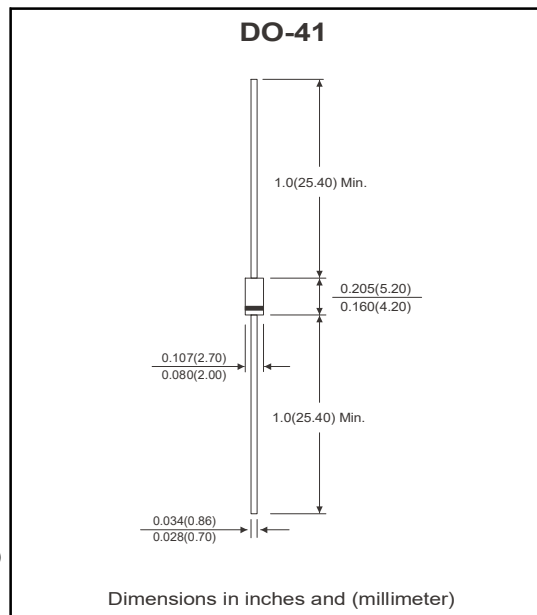
**Halogen Free**

### 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
- \* Weight: 0.33 gram



### Circuit diagram



### Maximum Ratings and 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	Conditions	Symbol	Value	Unit
Maximum recurrent peak reverse voltage		$V_{RRM}$	1000	V
Maximum RMS voltage		$V_{RMS}$	700	V
Maximum DC blocking voltage		$V_{DC}$	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
Maximum instantaneous forward voltage	@ $I_F = 1A$	$V_F$	1.0	V
Maximum DC reverse current at rated DC blocking voltage	$T_J = 25^\circ C$	$I_R$	0.2	$\mu A$
	$T_J = 150^\circ C$		400	
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 ~ +175	$^\circ C$
Storage temperature range		$T_{STG}$	-65 ~ +175	$^\circ C$

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

Company reserves the right to improve product design , functions and reliability without notice.

REV:B

## Rating and Characteristic Curves ( 1N4007GP-HF )

Fig.1 - Forward Current Derating Curve

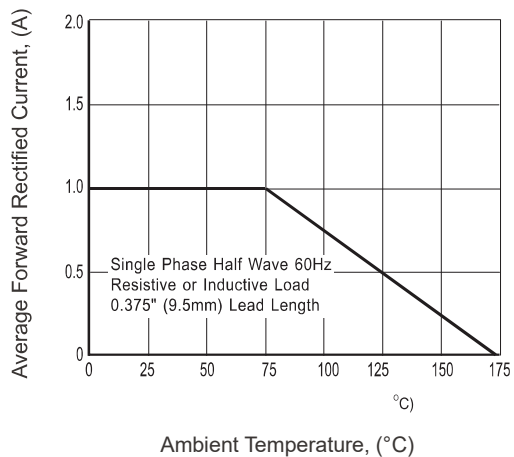


Fig.2 - Max. Non-Repetitive Peak Forward Surge Current

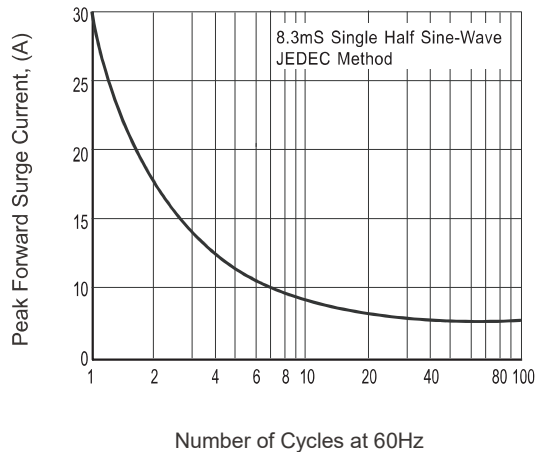


Fig.3 - Typical Instantaneous Forward Characteristics

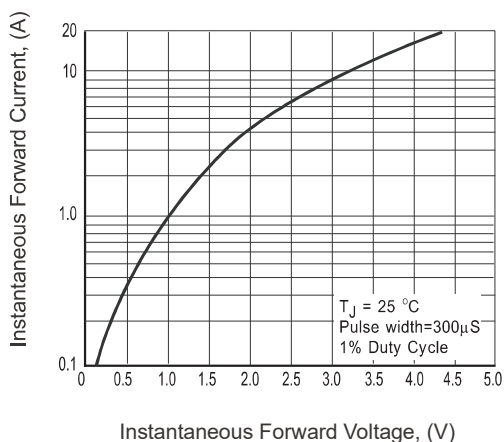


Fig.4 - Typical Reverse Characteristics

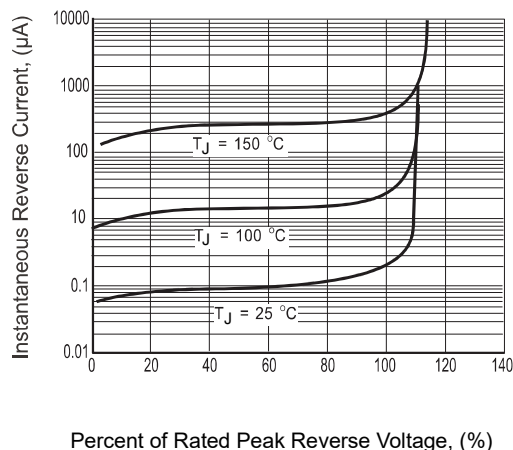
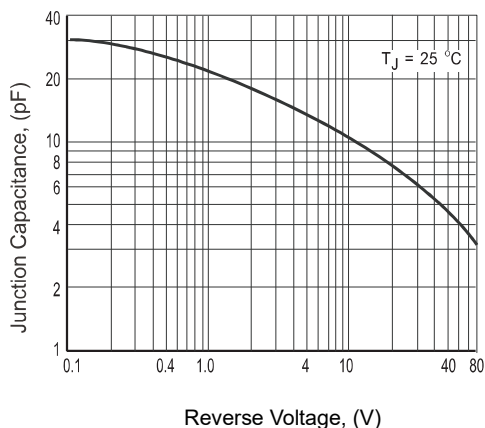
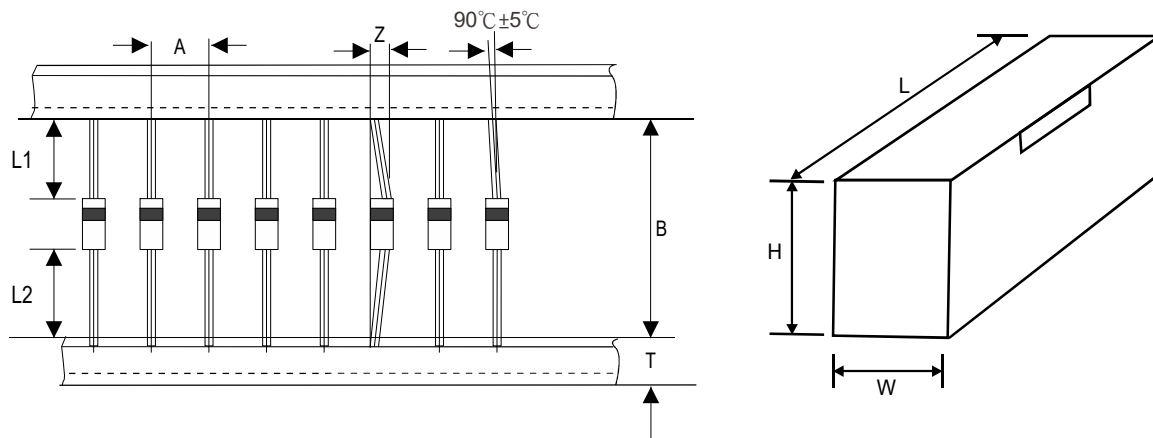


Fig.5 - Typical Junction Capacitance



## Taping Specification For Axial Lead Diodes



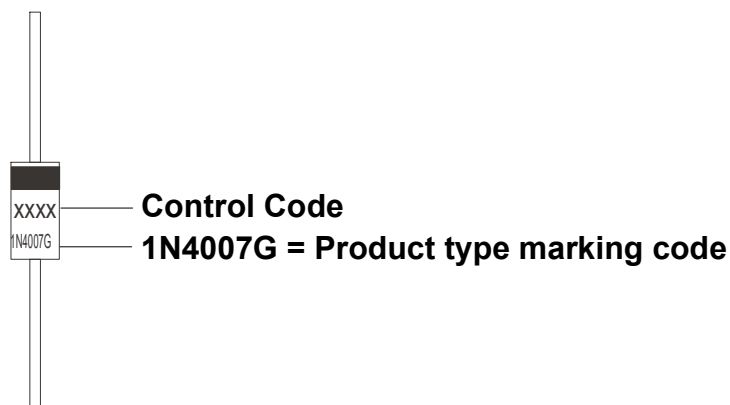
DO-41	SYMBOL	A	B	Z	T	L1	L2
	(mm)	5.00 ± 0.50	52.00 ± 0.50	1.20 (max)	6.00 ± 0.40	1.00 (max)	1.00 (max)
	(inch)	0.197 ± 0.020	2.047 ± 0.020	0.047 (max)	0.236 ± 0.016	0.039 (max)	0.039 (max)

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
1N4007GP-HF	1N4007G



### Standard Packaging

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