

# 1N4001G thru 1N4007G

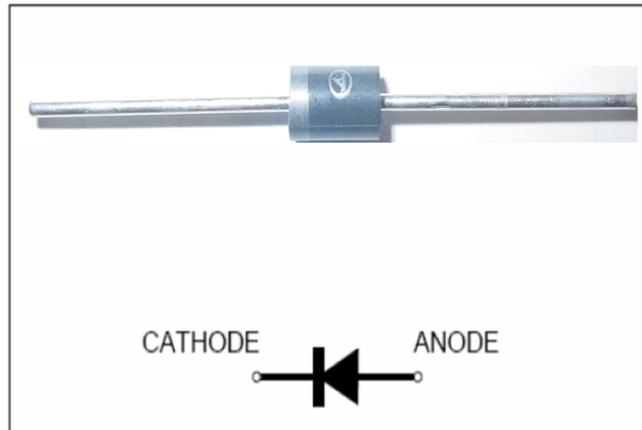
## General Purpose Plastic Rectifiers Reverse Voltage 50 to 1000V Forward Current 1.0A

### Feature & Dimensions

- \* Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- \* Construction utilizes void-free molded plastic technique
- \* Low reverse leakage
- \* High forward surge capability
- \* Glass passivated chip
- \* High temperature soldering guaranteed:  
260°C/10 seconds
- \* 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

### Mechanical Data

**Case:** JEDEC DO-41, molded plastic body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.011 oz., 0.284 g  
**Handling precaution:** None



We declare that the material of product compliance with ROHS requirements

### Electrical Characteristic

#### 1. Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	1N4 001G	1N4 002G	1N4 003G	1N4 004G	1N4 005G	1N4 006G	1N4 007G	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 at $T_A = 75^\circ\text{C}$	$I_F(AV)$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30							A
Maximum full load reverse current, full cycle average, 0.375" (9.5mm) lead lengths at $T_A = 75^\circ\text{C}$	$I_R(AV)$	30							$\mu\text{A}$
Typical thermal resistance (Note 1)	$R_{\theta JA}$	50							$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-50 to +150							$^\circ\text{C}$

#### Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	1N4 001G	1N4 002G	1N4 003G	1N4 004G	1N4 005G	1N4 006G	1N4 007G	Unit
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.10							V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 125^\circ\text{C}$	$I_R$	5.0 50							$\mu\text{A}$
Typical junction capacitance at 4.0V, 1MHz	$C_J$	15							PF

#### NOTES:

1. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

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## 2. Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

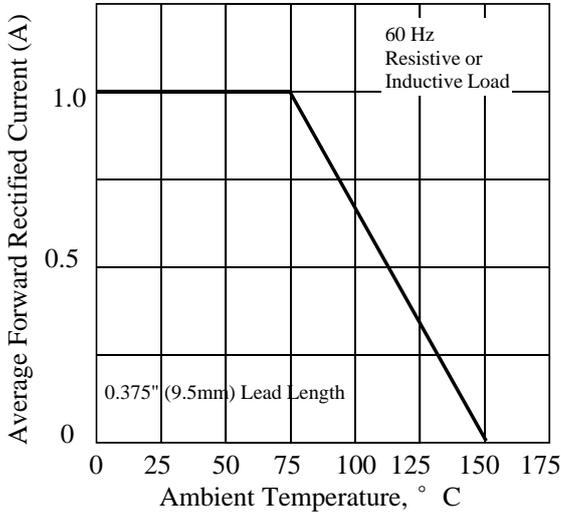


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

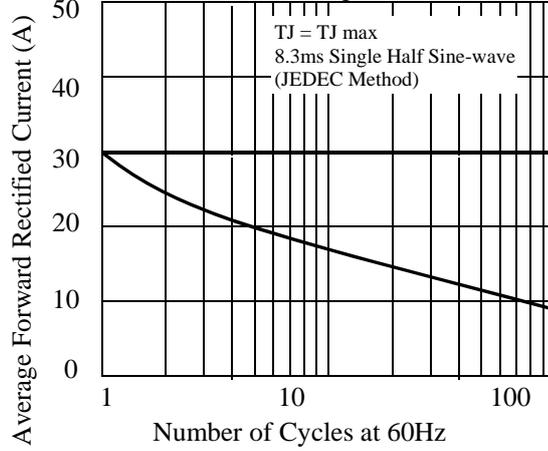


Fig. 3 - Typical Instantaneous Forward Characteristics

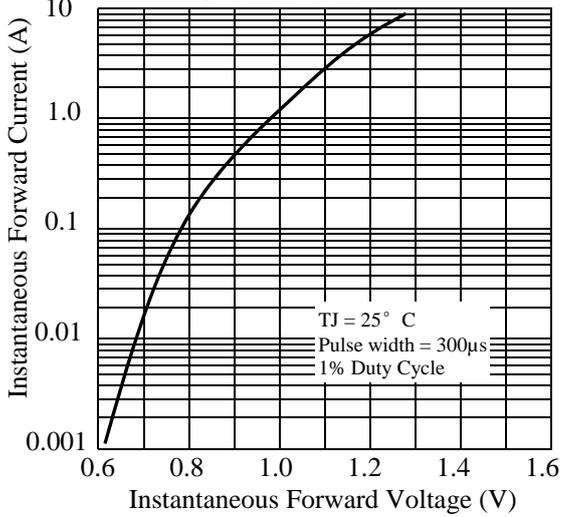


Fig. 4 - Typical Reverse Characteristics

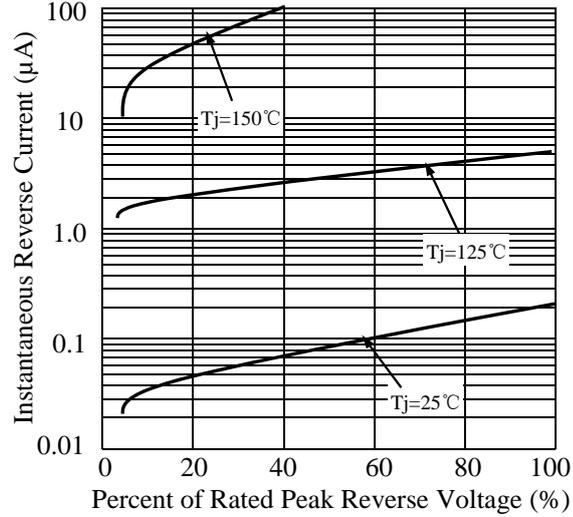


Fig. 5 - typical transient thermal impedance

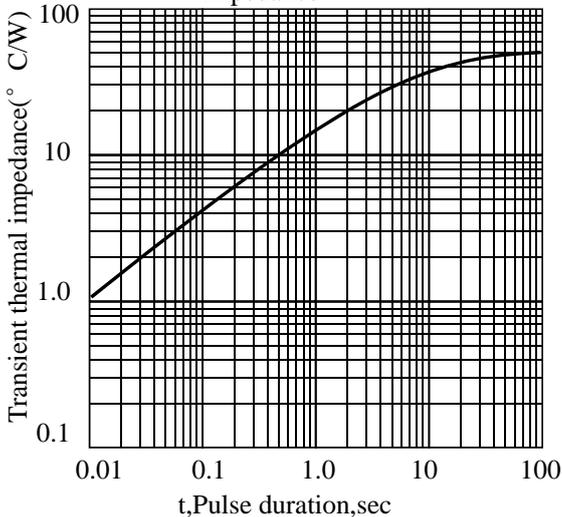
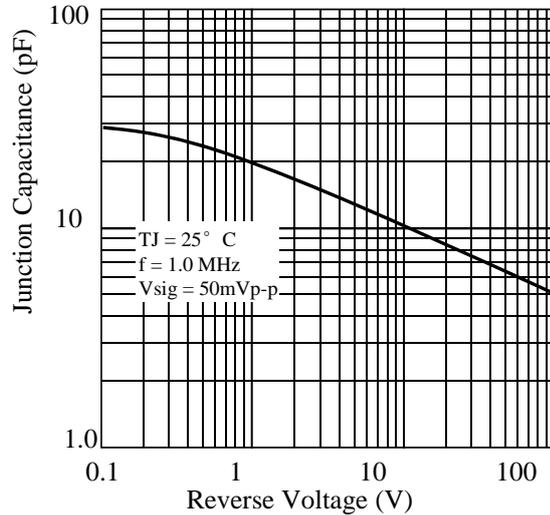
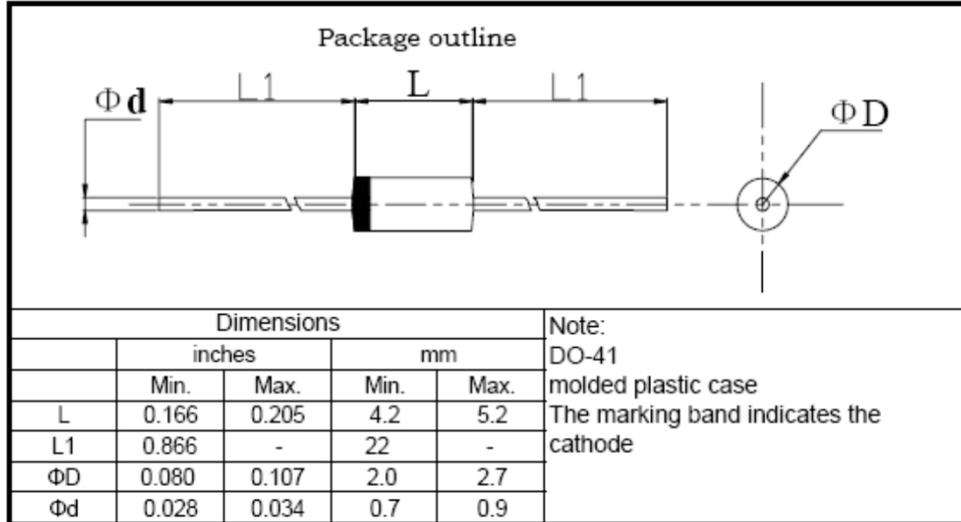


Fig. 6 - Typical Junction Capacitance



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### 3. dimension:



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### 4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	周杰	2010-4-7
2	版次修订	谭志伟	2016-12-30