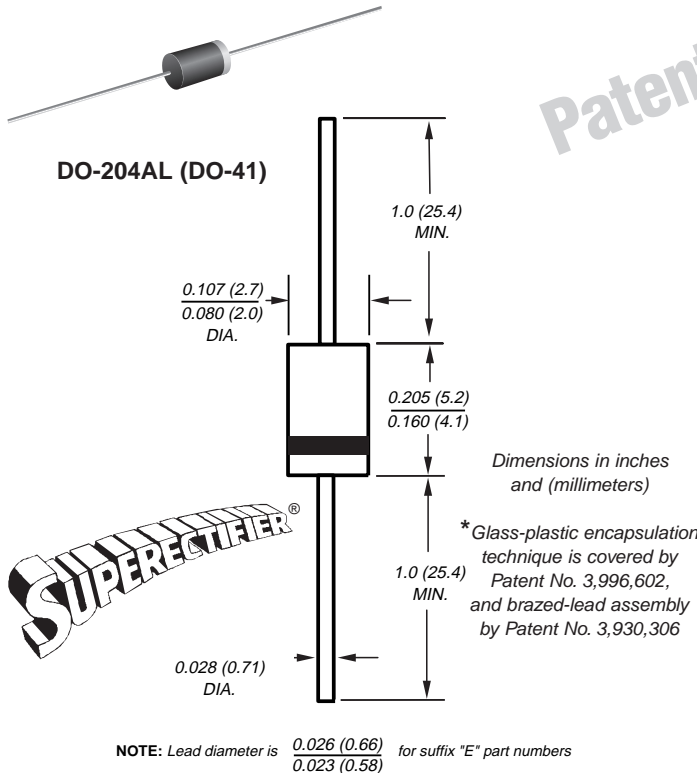


## Glass Passivated Junction Rectifiers

**Reverse Voltage**  
200 to 1000V  
**Forward Current** 1.0A



Patented\*

### Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction
- Capable of meeting environmental standards of MIL-S-19500
- 1.0 Ampere operation at  $T_A = 55^\circ\text{C}$  with no thermal runaway
- High temperature soldering guaranteed:  $350^\circ\text{C}/10$  seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

### Mechanical Data

**Case:** JEDEC DO-204AL, molded plastic over glass body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.012 oz., 0.3 g

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

Parameter	Symbol	1N 4245GP	1N 4246GP	1N 4247GP	1N 4248GP	1N 4249GP	Unit
* Maximum repetitive peak reverse voltage	$V_{RRM}$	200	400	600	800	1000	V
* Maximum RMS voltage	$V_{RMS}$	140	280	420	560	700	V
* Maximum DC blocking voltage	$V_{DC}$	200	400	600	800	1000	V
* Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 55^\circ\text{C}$	$I_{F(AV)}$	1.0					A
* Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	25					A
* Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length at $T_A = 55^\circ\text{C}$	$I_{R(AV)}$	50					$\mu\text{A}$
Typical thermal resistance <sup>(1)</sup>	$R_{\theta JA}$ $R_{\theta JL}$	55 25					$^\circ\text{C}/\text{W}$
* Operating junction temperature range	$T_J$	-65 to +160					$^\circ\text{C}$
* Storage temperature range	$T_{STG}$	-65 to +175					$^\circ\text{C}$

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

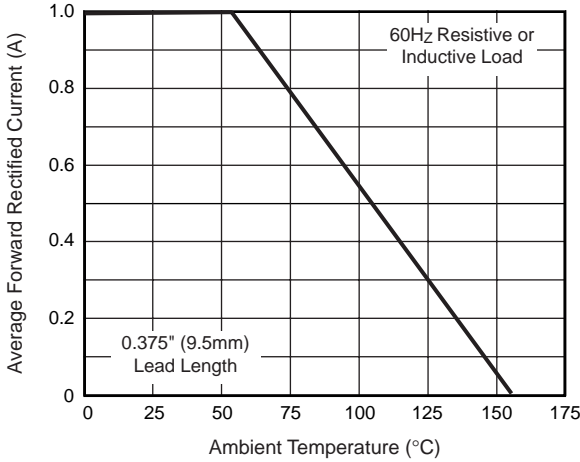
* Maximum instantaneous forward voltage at 1.0A	$V_F$	1.2	V
* Maximum reverse current at rated DC blocking voltage	$I_R$	1.0 25	$\mu\text{A}$
Typical junction capacitance at 4.0V, 1MHz	$C_J$	8.0	pF

Note: (1) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted \*JEDEC registered values

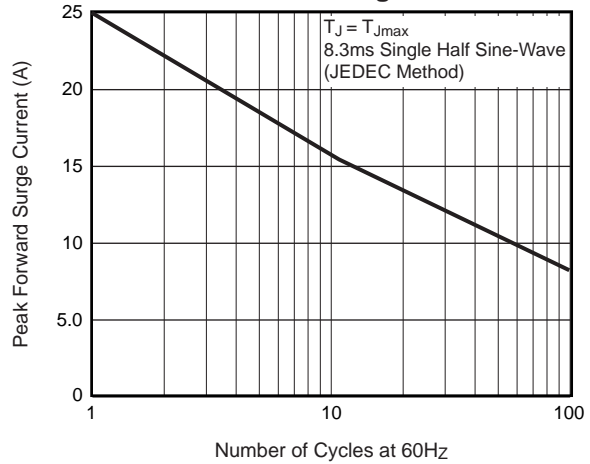


## Ratings and Characteristic Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

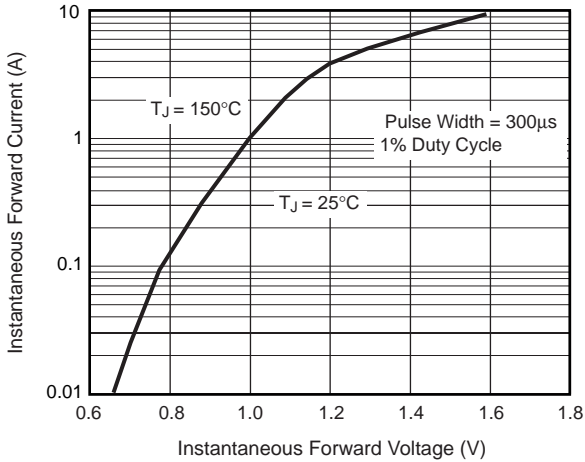
**Fig. 1 – Forward Current Derating Curve**



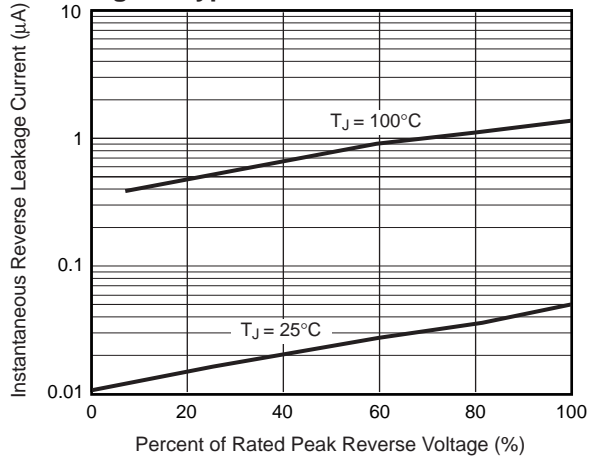
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



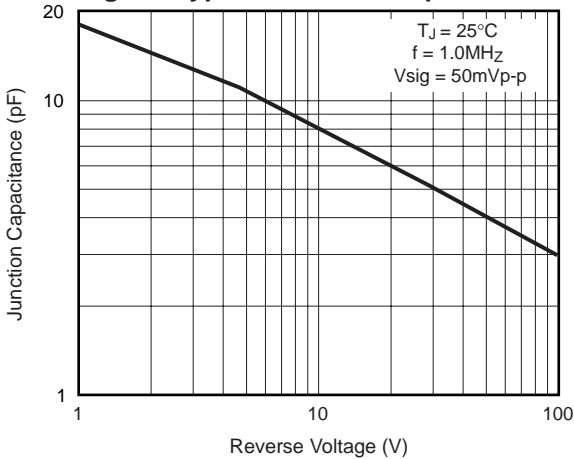
**Fig. 3 – Typical Instantaneous Forward Characteristics**



**Fig. 4 – Typical Reverse Characteristics**



**Fig. 5 – Typical Junction Capacitance**



**Fig. 6 – Typical Transient Thermal Impedance**

