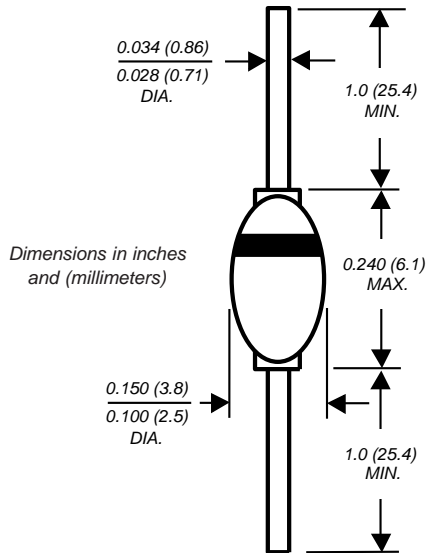


## Glass Passivated Junction Rectifiers

**Reverse Voltage**  
200 to 800V  
**Forward Current** 1.0A


**DO-204AP**


\* Brazed-lead assembly is covered by Patent No. 3,930,306

Patented\*

### Features

- High temperature metallurgically bonded construction
- 1.0 ampere operation at  $T_A = 75^\circ\text{C}$  with no thermal runaway
- Typical  $I_R$  less than  $0.1\mu\text{A}$
- Hermetically sealed package
- Cavity-free glass passivated junction
- Capable of meeting environmental standards of MIL-S-19500
- 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-204AP solid glass body

**Terminals:** Solder plated axial leads, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.02 oz., 0.56 g

### Maximum Ratings & Thermal Characteristics Ratings at $25^\circ\text{C}$ ambient temperature unless otherwise specified.

Parameter	Symbol	1N5059	1N5060	1N5061	1N5062	Unit
* Maximum repetitive peak reverse voltage	$V_{RRM}$	200	400	600	800	V
Maximum RMS voltage	$V_{RMS}$	140	280	420	560	V
* Maximum DC blocking voltage	$V_{DC}$	200	400	600	800	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)	$I_{FSM}$	50				A
* Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length at $T_A = 25^\circ\text{C}$ $T_A = 75^\circ\text{C}$	$I_{R(AV)}$	5.0				$\mu\text{A}$
		150		100		
Typical thermal resistance <sup>(1)</sup>	$R_{\theta JA}$	55				$^\circ\text{C}/\text{W}$
* Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +175				$^\circ\text{C}$

### Electrical Characteristics Ratings at $25^\circ\text{C}$ ambient temperature unless otherwise specified.

* Maximum instantaneous forward voltage at 1.0A	$V_F$	1.2			V
* Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 75^\circ\text{C}$	$I_R$	5.0		$\mu\text{A}$	
		300	200		
Typical reverse recovery time at $I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$	$t_{rr}$	1.5			$\mu\text{s}$
Typical junction capacitance at 4.0V, 1MHz	$C_J$	15			pF

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

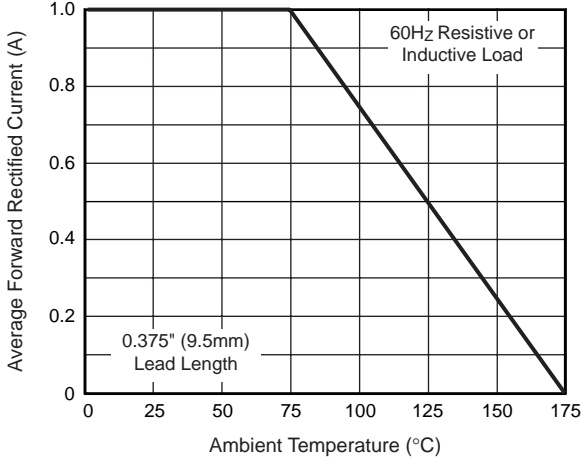
# 1N5059 thru 1N5062

Vishay Semiconductors  
formerly General Semiconductor

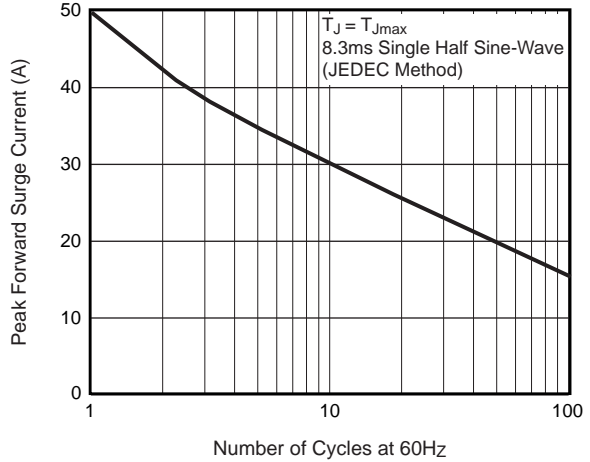


## Ratings and Characteristic Curves (T<sub>A</sub> = 25°C unless otherwise noted)

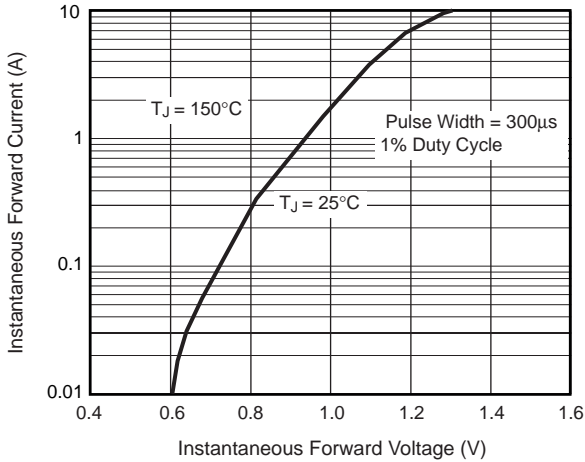
**Fig. 1 – Forward Current Derating Curve**



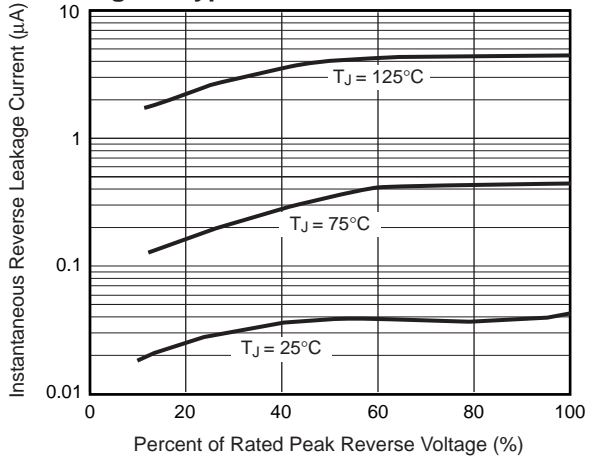
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



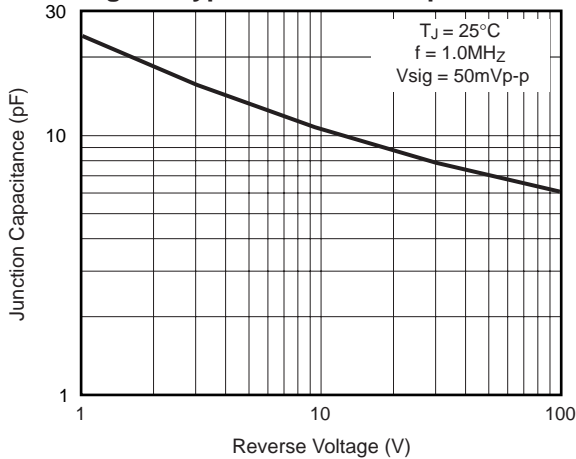
**Fig. 3 – Typical Instantaneous Forward Characteristics**



**Fig. 4 – Typical Reverse Characteristics**



**Fig. 5 – Typical Junction Capacitance**



**Fig. 6 – Max. Non-Repetitive Peak Pulse Reverse Avalanche Power Dissipation**

