

# 1N4245 THRU 1N4249

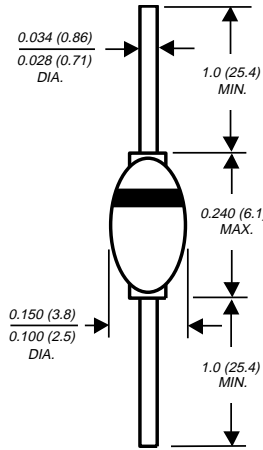
## GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 200 to 1000 Volts

Forward Current - 1.0 Ampere

**PATENTED \***

DO-204AP



Dimensions in inches and (millimeters)

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

### FEATURES

- ♦ High temperature metallurgically bonded construction
- ♦ 1.0 Ampere operation  
 $T_A=55^{\circ}\text{C}$  with no thermal runaway
- ♦ Typical  $I_R$  less than  $0.1\mu\text{A}$
- ♦ Hermetically sealed package
- ♦ 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 ounce, 0.56 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	1N4245	1N4246	1N4247	1N4248	1N4249	UNITS
* Maximum repetitive peak reverse voltage	$V_{RRM}$	200	400	600	800	1000	Volts
Maximum RMS voltage	$V_{RMS}$	140	280	420	560	700	Volts
* Maximum DC blocking voltage	$V_{DC}$	200	400	600	800	1000	Volts
* Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=55^{\circ}\text{C}$	$I_{(AV)}$	1.0					Amp
* Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50.0					Amps
* Maximum instantaneous forward voltage at 1.0A	$V_F$	1.2					Volts
* Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length at $T_A=55^{\circ}\text{C}$	$I_{R(AV)}$	50.0					$\mu\text{A}$
* Maximum reverse current at Rated DC blocking voltage $T_A=25^{\circ}\text{C}$ $T_A=125^{\circ}\text{C}$	$I_R$	1.0 25.0					$\mu\text{A}$
Typical junction capacitance (NOTE 1)	$C_J$	15.0					pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	55.0					$^{\circ}\text{C}/\text{W}$
* Operating junction temperature range	$T_J$	-65 to +160					$^{\circ}\text{C}$
* Storage temperature range	$T_{STG}$	-65 to +200					$^{\circ}\text{C}$

#### NOTES:

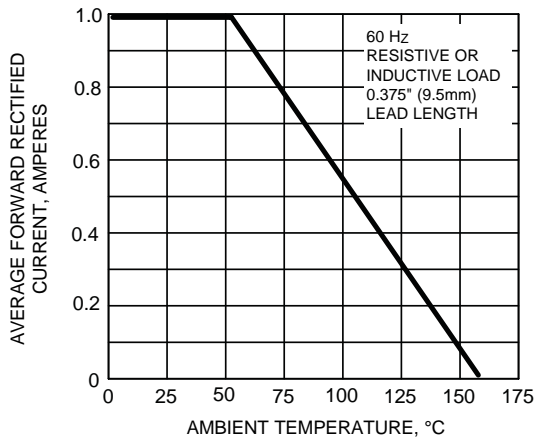
(1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

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

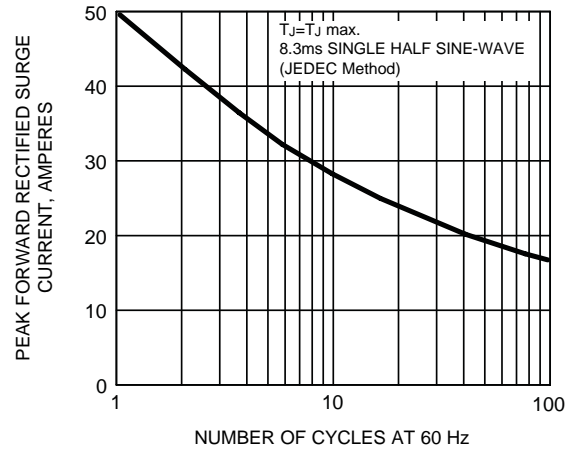
\*JEDEC registered values

# RATINGS AND CHARACTERISTIC CURVES 1N4245 THRU 1N4249

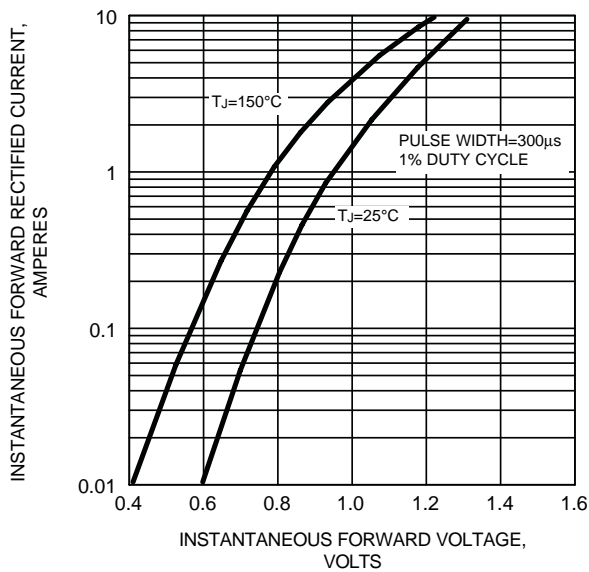
**FIG. 1 - FORWARD CURRENT DERATING CURVE**



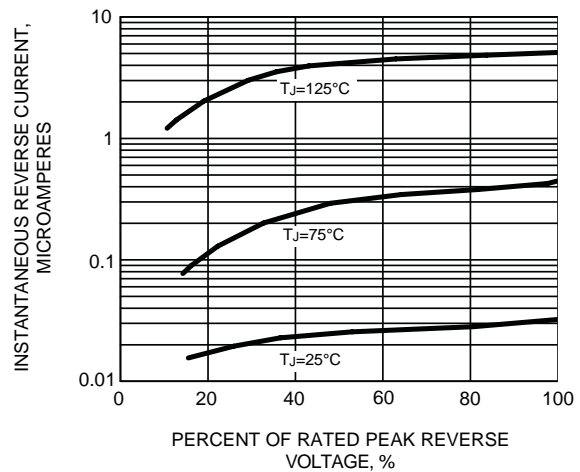
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**

