

# Silicon Diode

## **1N4245**

200V / 1A

# DATASHEET

OEM – General Semiconductor

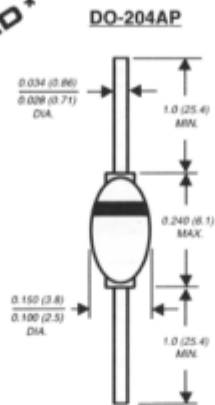
Source: General Semiconductor Databook 1998

# 1N4245 THRU 1N4249

## GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 200 to 1000 Volts      Forward Current - 1.0 Ampere

**PATENTED\***



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<sub>A</sub>=55°C with no thermal runaway
- Typical I<sub>R</sub> less than 0.1μA
- Hermetically sealed package
- Capable of meeting environmental standards of MIL-S-19500
- High temperature soldering guaranteed:  
350°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°C ambient temperature unless otherwise specified.

	SYMBOLS	1N4245	1N4246	1N4247	1N4248	1N4249	UNITS
* Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	200	400	600	800	1000	Volts
Maximum RMS voltage	V <sub>RMS</sub>	140	280	420	560	700	Volts
* Maximum DC blocking voltage	V <sub>DC</sub>	200	400	600	800	1000	Volts
* Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>A</sub> =55°C	I <sub>(AV)</sub>	1.0					Amp
* Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	50.0					Amps
* Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	1.2					Volts
* Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length at T <sub>A</sub> =55°C	I <sub>R(AV)</sub>	50.0					μA
* Maximum reverse current at Rated DC blocking voltage	I <sub>R</sub>	1.0 25.0					μA
T <sub>A</sub> =25°C T <sub>A</sub> =125°C							
Typical junction capacitance (NOTE 1)	C <sub>J</sub>	15.0					pF
Typical thermal resistance (NOTE 2)	R <sub>θJA</sub>	55.0					°C/W
* Operating junction temperature range	T <sub>J</sub>	-65 to +160					°C
* Storage temperature range	T <sub>STG</sub>	-65 to +200					°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**

