

Silicon Diode

1N4247

600V / 1A

DATASHEET

OEM – General Semiconductor

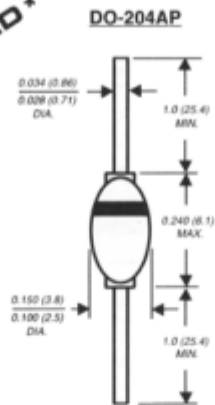
Source: General Semiconductor Databook 1998

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_A=55°C with no thermal runaway
- Typical I_R 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 _{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°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°C	I _{R(AV)}	50.0					μA
* Maximum reverse current at Rated DC blocking voltage	I _R	1.0 25.0					μA
Typical junction capacitance (NOTE 1)	C _J	15.0					pF
Typical thermal resistance (NOTE 2)	R _{θJA}	55.0					°C/W
* Operating junction temperature range	T _J	-65 to +160					°C
* Storage temperature range	T _{STG}	-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

FIG. 1 - FORWARD CURRENT DERATING CURVE

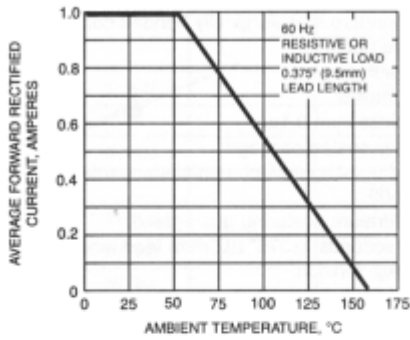


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

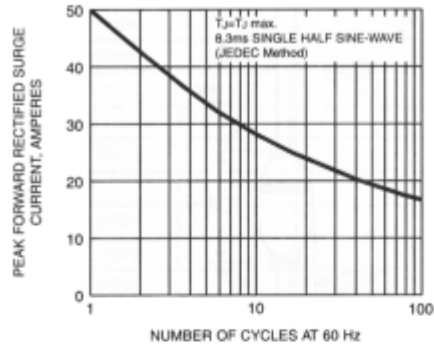


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

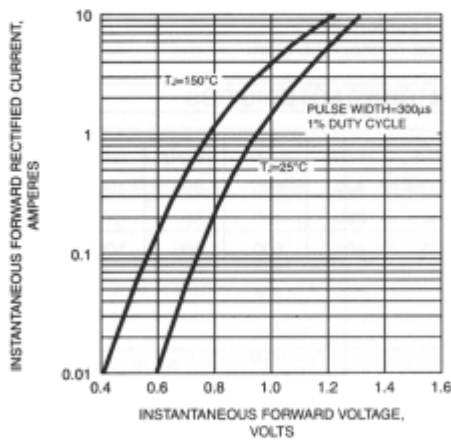


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

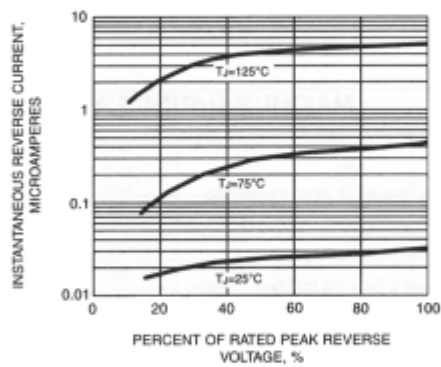


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

