Silicon Diode

1N4249

1000V / 1A

DATASHEET

OEM – General Semiconductor

Source: General Semiconductor Databook 1998

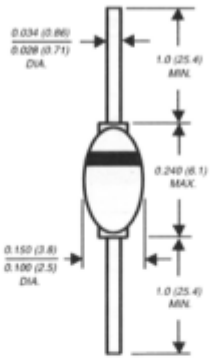
1N4245 THRU 1N4249

GLASS PASSIVATED JUNCTION RECTIFIER

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

PATENTED*

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°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 T_A=25°C / T_A=125°C	I_R	1.0 / 25.0					µA
Typical junction capacitance (NOTE 1)	C_J	15.0					pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	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

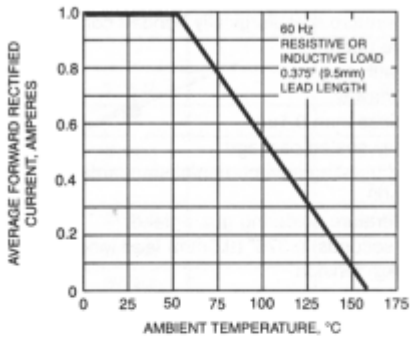


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

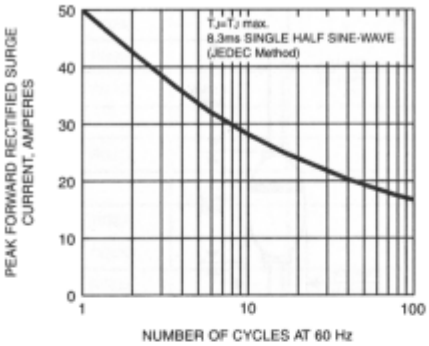


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

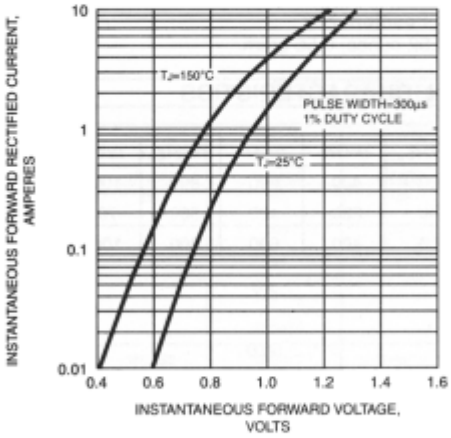


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

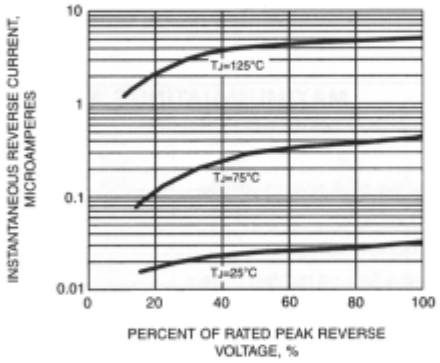


FIG. 5 - TYPICAL JUNCTION CAPACITANCE