

1N5059 THRU 1N5062

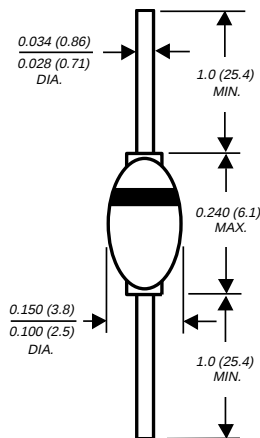
GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 200 to 800 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 at $T_A=75^\circ\text{C}$ with no thermal runaway
- ♦ Typical I_R less than $0.1\mu\text{A}$
- ♦ Hermetically sealed package
- ♦ Glass passivated cavity-free 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

Weight: 0.02 ounce, 0.56 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	1N5059	1N5060	1N5061	1N5062	UNITS
* Maximum repetitive peak reverse voltage	VRRM	200	400	600	800	Volts
Maximum RMS voltage	VRMS	140	280	420	560	Volts
* Maximum DC blocking voltage	VDC	200	400	600	800	Volts
* Maximum average forward rectified current 0.375" (9.5mm) lead length at TA=75°C	IAV	1.0				Amp
* Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	50.0				Amps
* Maximum instantaneous forward voltage at 1.0A	VF	1.2				Volts
* Maximum full Load reverse current, full cycle average 0.375" (9.5mm) TA=25°C lead length at TA=75°C	IR(AV)	5.0				µA
		150		100		
* Maximum DC reverse current TA=25°C at rated DC blocking voltage TA=175°C	IR	5.0				µA
		300		200		
Typical reverse recovery time (NOTE 1)	trr	1.5				µs
Typical junction capacitance (NOTE 2)	CJ	15.0				pF
Typical thermal resistance (NOTE 3)	RθJA	55.0				°C/W
* Operating junction and storage temperature range	TJ, TSTG	-65 to +175				°C

NOTES:

(1) Reverse recovery test conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$

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

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

*JEDEC registered values

RATINGS AND CHARACTERISTIC CURVES 1N5059 THRU 1N5062

FIG. 1 - FORWARD CURRENT DERATING CURVE

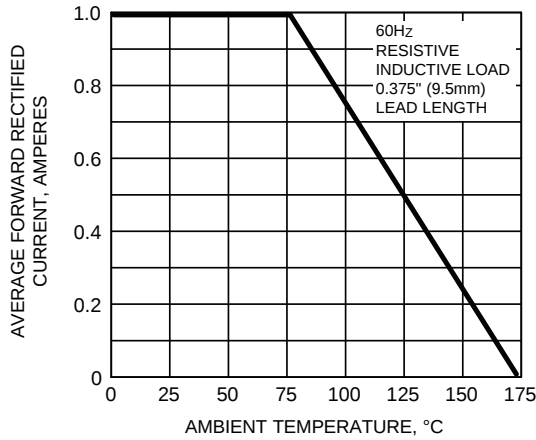


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

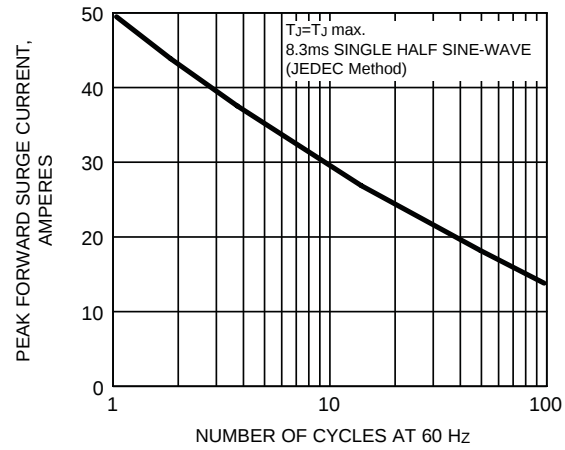


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

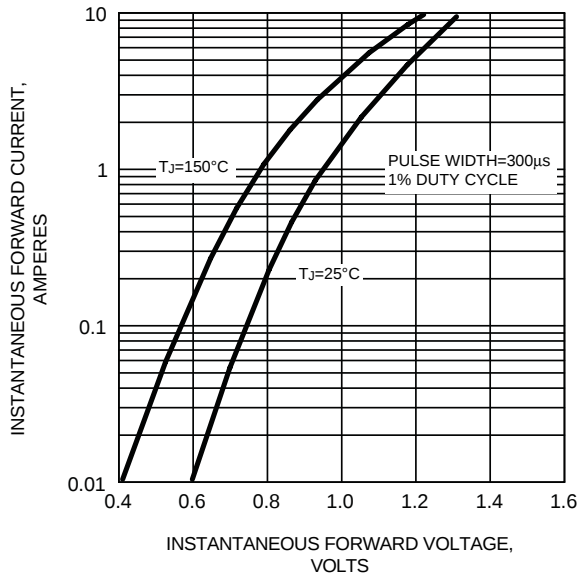


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

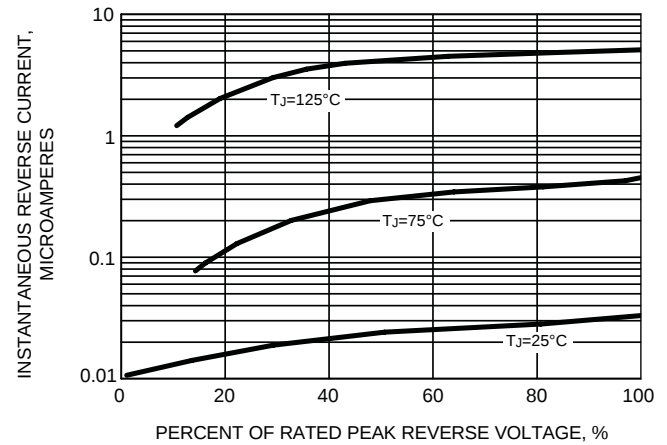


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

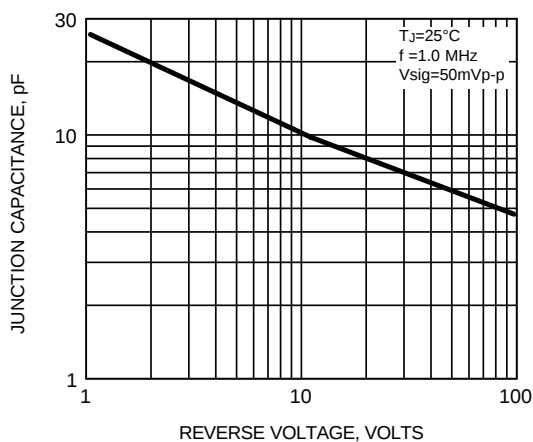


FIG. 6 - MAXIMUM NON-REPETITIVE PEAK PULSE REVERSE AVALANCHE POWER DISSIPATION

