

General Purpose Plastic Rectifiers

Reverse Voltage: 50 to 1000V
Forward Current: 3.0 Amp

Features

- Glass passivated chip junction
- High forward surge capability
- Low reverse leakage
- Low power loss
- High temperature soldering guaranteed
260°C/10 seconds at terminals.

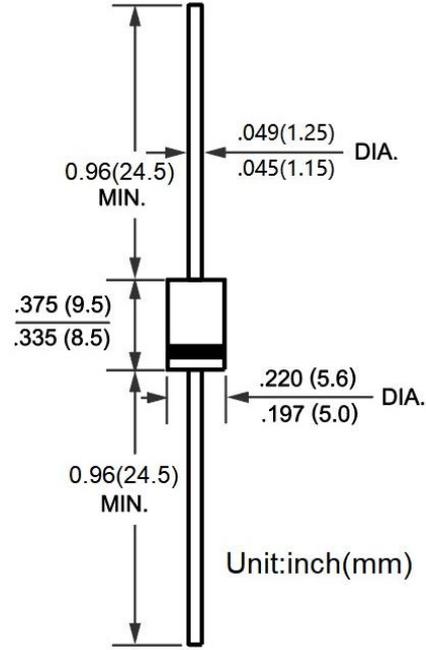
Mechanical Data

- **Package:** DO-27, Molded plastic body
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per MIL-STD-750, Method 2026
- **Polarity:** Color band denotes cathode end

Typical Applications

For use in high voltage rectification of power supply, inverters, converters, freewheeling diodes and snubber circuit application.

DO-27



Unit: inch(mm)

Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter&Test Conditions	SYM.	1N 5400G	1N 5401G	1N 5402G	1N 5403G	1N 5404G	1N 5405G	1N 5406G	1N 5407G	1N 5408G	Unit
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	300	400	500	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	210	280	350	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	200	400	500	600	800	1000	V
Average rectified output current @60Hz sine wave, Resistance load, T _a =70°C (FIG.1)	I _{O(AV)}	3.0									A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load	I _{FSM}	150									A
Maximum Thermal Resistance, Junction To Ambient (Note1)	R _{θJA}	30									°C/W
Operating junction and storage temperature range	T _j , T _{STG}	-55 to+150									°C

Electrical Characteristics (T_a=25°C Unless otherwise specified)

Parameter&Test Conditions	SYM.	1N 5400G	1N 5401G	1N 5402G	1N 5403G	1N 5404G	1N 5405G	1N 5406G	1N 5407G	1N 5408G	Unit
Maximum Instantaneous Forward Voltage IFM =3A	V _{FM}	1.0									V
Maximum DC reverse current at rated DC blocking voltage	I _R	5									μA
		200									
Typical junction capacitance(Note2)	C _J	50									pF

Notes:

1. Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length, PCB mounted with 0.8" x 0.8" (20 mm x 20 mm) copper heatsinks .
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. The typical data above is for reference only.

Rating and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED

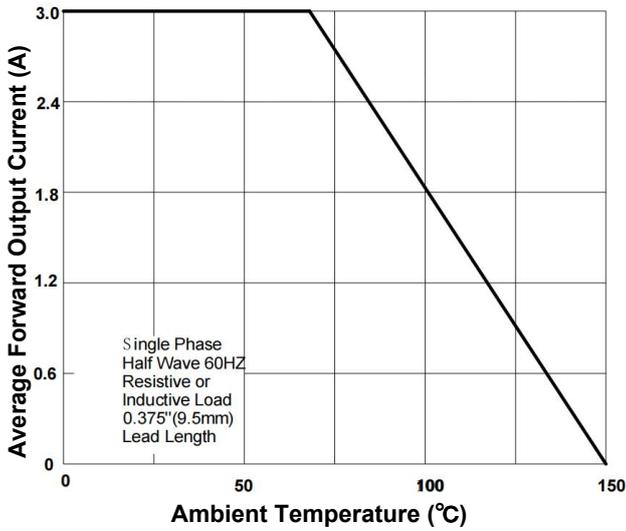


FIG. 2- -MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

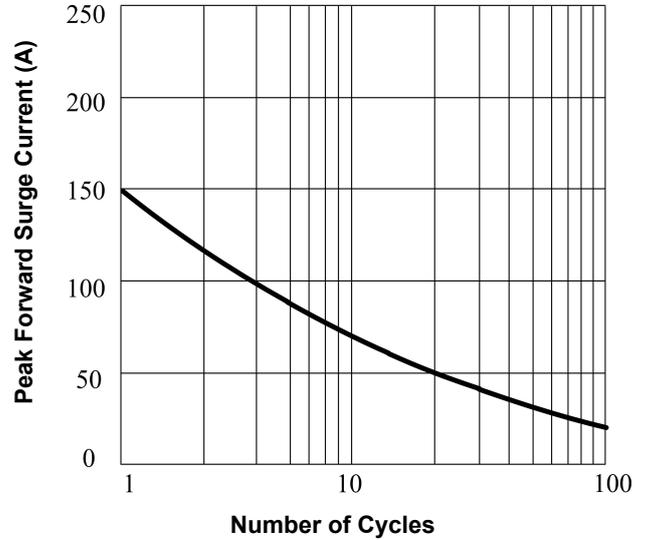


FIG. 3- TYPICAL FORWARD VOLTAGE

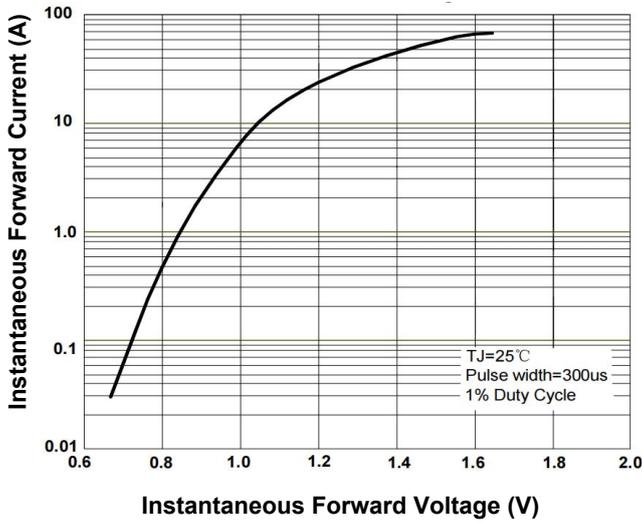
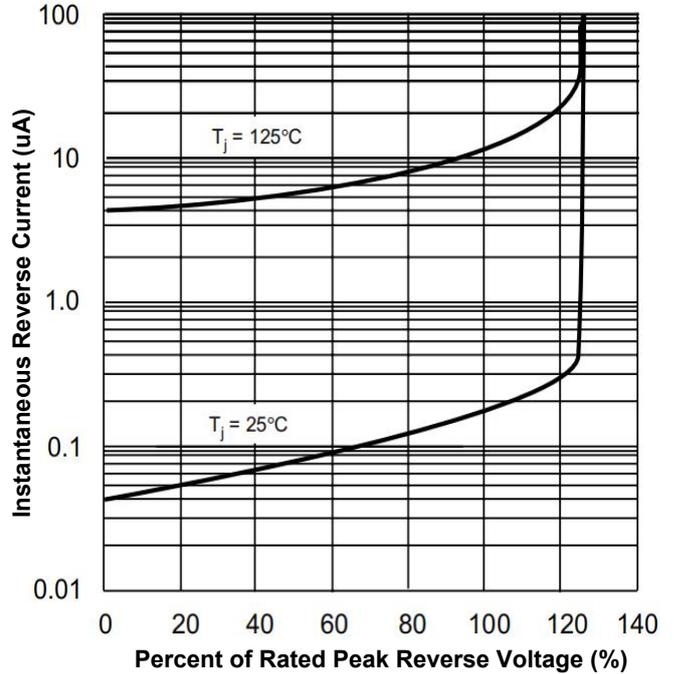


FIG. 4- TYPICAL REVERSE LEAKAGE



The curve above is for reference only.



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