

T-01-13

**1N4383GP thru 1N4385GP
1N4585GP and 1N4586GP**

MINIATURE GLASS PASSIVATED JUNCTION PLASTIC RECTIFIER

SUPERECTIFIER

GENERAL INSTRUMENT

FEATURES

- High temperature metallurgically bonded — no compression contacts as found in diode-constructed rectifiers
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- 1 ampere operation at $T_A = 100^\circ\text{C}$ with no thermal runaway
- Typical I_n less than $1\mu\text{A}$
- Exceeds environmental standards of MIL-STD-19500
- Glass passivated junction in DO-15 package
- High temperature soldering guaranteed: 350°C , .375", (9.5mm) lead lengths/10 seconds at 5 lbs., (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO15 molded plastic
 Terminals: Axial leads, solderable per MIL-STD-202, Method 208
 Polarity: Color band denotes cathode
 Mounting position: Any
 Weight: 0.015 ounce, .4 gram

VOLTAGE RANGE
200 to 1000 Volts

CURRENT
1.0 Ampere

DO-15

Dimensions in Inches and (millimeters)

PATENTED

Glass-plastic encapsulation technique is covered by Patent No. 3,896,602 of 1976; braze-lead assembly by Patent No. 3,830,206 of 1976 and glass composition by Patent No. 3,152,701 of 1973

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	1N4383GP	1N4384GP	1N4385GP	1N4585GP	1N4586GP	UNITS
* Maximum Recurrent Peak Reverse Voltage	200	400	600	800	1000	V
Maximum RMS Voltage	140	280	420	560	700	V
* Maximum DC Blocking Voltage	200	400	600	800	1000	V
* Maximum Average Forward Rectified Current .375", 9.5mm Lead Length at $T_A = 100^\circ\text{C}$	1.0					A
* Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	50					A
Maximum Instantaneous Forward Voltage at 1.0A	1.0					V
* Maximum Reverse Current at Rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$ $T_A = 150^\circ\text{C}$ 5.0 250					μA
Typical Junction Capacitance (Note 1)	25					pF
Typical Reverse Recovery Time (Note 2)	2					μs
* Operating and Storage Temperature Range T_J, T_{STG}	-65 to +175					$^\circ\text{C}$

NOTES:
 1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
 2. Measured with $I_F = .5\text{A}$, $I_R = 1\text{A}$, $t_{rr} = .25\mu\text{s}$.
 * JEDEC Registered Value.

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RATING AND CHARACTERISTIC CURVES
1N4383GP THRU 1N4385GP
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FIG. 1 — TYPICAL FORWARD CHARACTERISTICS

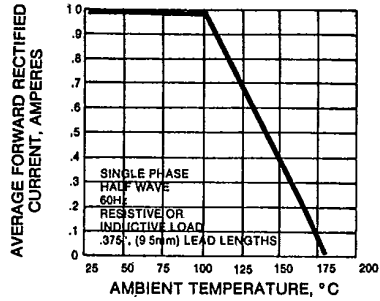


FIG. 2 — MAXIMUM NON-REPETITIVE SURGE CURRENT

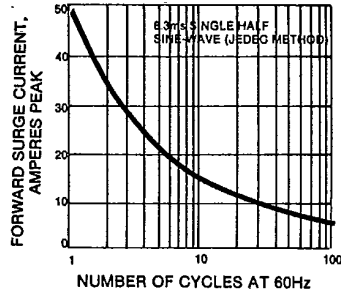


FIG. 3 — FORWARD DERATING CURVE

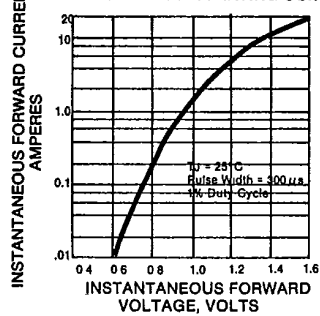


FIG. 4 — TYPICAL REVERSE CHARACTERISTICS

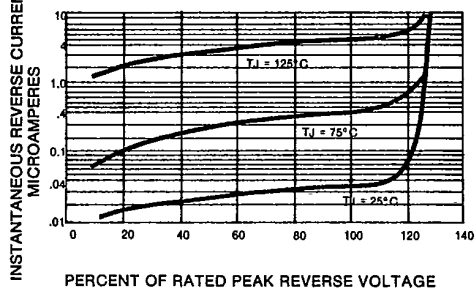


FIG. 5 — TYPICAL JUNCTION CAPACITANCE

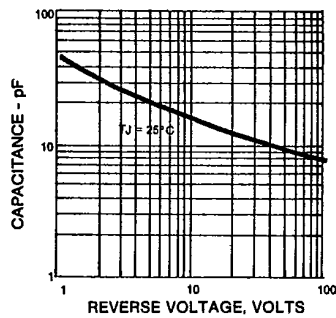


FIG. 6 — SUPERRECTIFIER

