


GP15 SERIES
 MINIATURE GLASS PASSIVATED JUNCTION PLASTIC RECTIFIER **7-01-15**



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
- Glass passivated junction in DO-15 package
- 1.5 ampere operation at T_A = 55° C with no thermal runaway
- Typical I_R less than 1 μA
- Exceeds environmental standards of MIL-STD-19500
- High temperature soldering guaranteed 350° C/10 seconds/.375", (9.5mm) lead length at 5 lbs., (2.3kg) tension

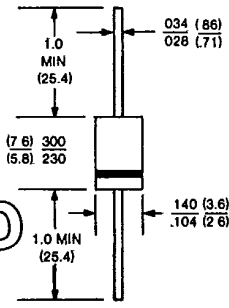
MECHANICAL DATA

Case: Molded plastic over glass
 Terminals: Axial leads, solderable per MIL-STD-202, Method 208
 Polarity: Color band denotes cathode
 Mounting position: Any
 Weight: 0.015 ounce, 0.4 gram

VOLTAGE RANGE
50 to 1000 Volts

CURRENT
1.5 Amperes

DO-15



Dimensions in inches and (millimeters)

PATENTED

Glass-plastic encapsulation technique is covered by Patent No. 3,996,602 of 1976; brass-lead assembly to Patent No. 3,930,306 of 1976 and glass composition by Patent No. 3,752,701 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%.

	GP15A	GP15B	GP15D	GP15G	GP15J	GP15K	GP15M	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375", 9.5mm Lead Length at T _A = 55° C	1.5							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	50							A
Maximum Instantaneous Forward Voltage at 1.5A	1.1							V
Maximum Reverse Current at Rated DC Blocking Voltage T _A = 25° C	5.0							μA
Maximum Full Load Reverse Current, Full Cycle Average, .375", 9.5mm Lead Length at T _A = 55° C	100							μA
Typical Junction Capacitance (Note 1)	25							pF
Typical Reverse Recovery Time (Note 2)	2.0							s
Operating and Storage Temperature Range T _J , T _{stg}	-65 to +175							°C

NOTES:
 1. Measured at 1.0 MHz and applied reverse voltage of 4.0VDC.
 2. Measured with I_F = .5A, I_R = 1A, I_{rr} = .25A.

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**RATING AND CHARACTERISTICS CURVES
GP15 SERIES**

FIG. 1 — FORWARD CURRENT DERATING CURVE

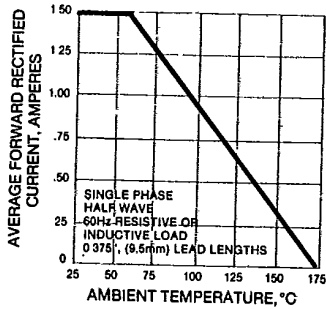


FIG. 2 — MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

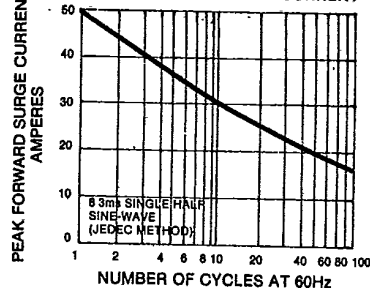


FIG. 3 — TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

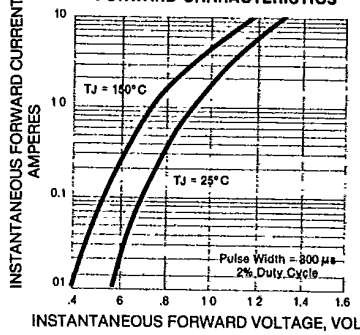


FIG. 4 — TYPICAL JUNCTION CAPACITANCE

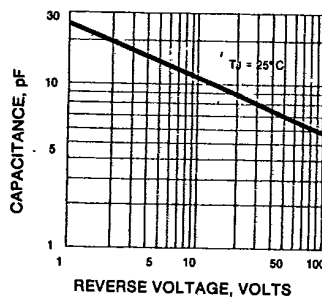


FIG. 5 — TYPICAL REVERSE CHARACTERISTICS

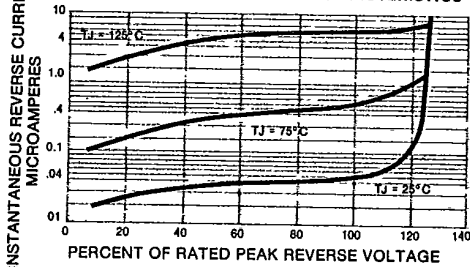


FIG. 6 — SUPERRECTIFIER

