T-01-15

BY126MGP, BY127MGP/BY226MGP, BY227MGP

MINIATURE GLASS PASSIVATED JUNCTION PLASTIC RECTIFIER

SUPERECTIFIER®

GENERAL INSTRUMENT



VOLTAGE RANGE
650 and 1250 Volts

CURRENT
1.75 and 2.0 Amperes

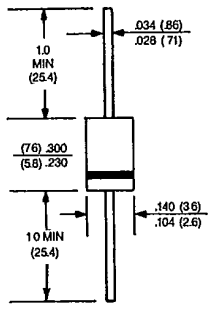
FEATURES

- High temperature metallurgically bonded 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

DO-15



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 50 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

	BY126MGP	BY127MGP	BY226MGP	BY227MGP	UNITS
Maximum Recurrent Peak Reverse Voltage	650	1250	650	1250	V_{RRM}
Maximum RMS Voltage	455	875	455	875	V_{RMS}
Maximum DC Blocking Voltage	650	1250	650	1250	V_{DC}
Maximum Average Forward Rectified Current .375", (9.5mm) Lead Length at T_A = 55°C	1.75		2.0		$A_{(AV)}$
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	50		60		Apk
Maximum Instantaneous Forward Voltage at 5.0A	1.5				Vpk
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				μs
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.

RATING AND CHARACTERISTIC CURVES BY126MGP, BY127MGP, BY226MGP & BY227MGP

FIG. 1 — FORWARD CURRENT DERATING CURVE

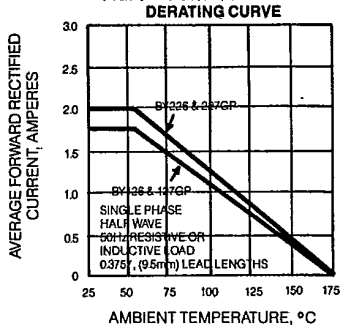


FIG. 2 — MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

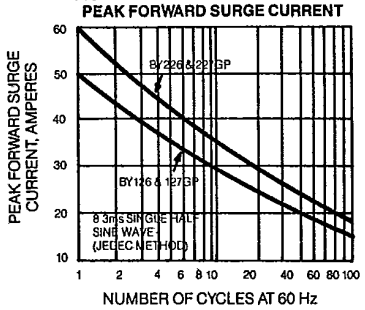


FIG. 3 — TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

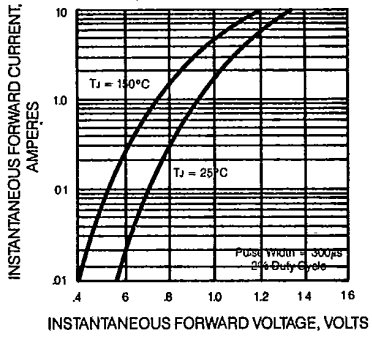


FIG. 4 — TYPICAL JUNCTION CAPACITANCE

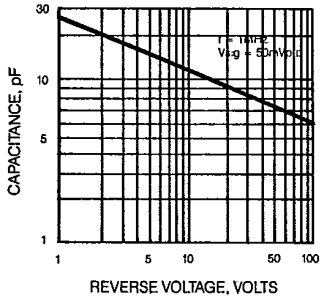


FIG. 5 — TYPICAL REVERSE CHARACTERISTICS

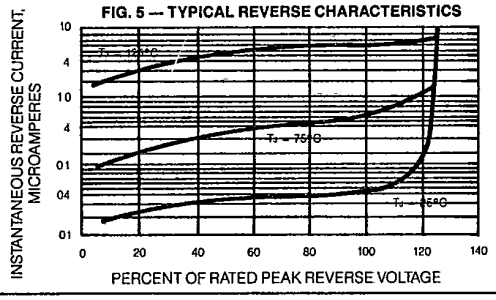


FIG. 6 — SUPERECTIFIER

