BY127M,BY133,EM513

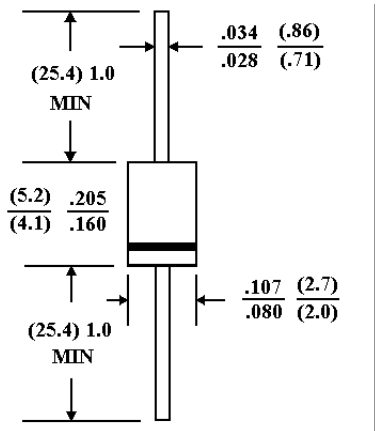
PLASTIC SILICON RECTIFIER

VOLTAGE - 1250 to 1600 Volts CURRENT - 1.0 Ampere

FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Exceeds environmental standards of MIL-S-19500/228

DO-41



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic , DO-41

Epoxy: UL 94V-O rate flame retardant

Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.012 ounce, 0.3 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ¢J ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	BY127M	BY133	EM513	UNITS
Maximum Recurrent Peak Reverse Voltage*	1250	1300	1600	V
Maximum RMS Voltage*	875	910	1120	V
Maximum DC Blocking Voltage*	1250	1300	1600	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at T_A=75 ¢J		1.0		A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		30		A
Maximum Forward Voltage at 1.0A DC and 25 ¢J		1.1		V
Maximum Reverse Current at T_A=25 ¢J At Rated DC Blocking Voltage T_A=100 ¢J		5.0 500		£g A £g A
Typical Junction capacitance (Note 1)		15		$_P$F
Typical Thermal Resistance (Note 2) R £KJA		50		¢J/W
Typical Thermal resistance (NOTE 2) R £K JL		25		¢J/W
Operating and Storage Temperature Range T_J,T_{STG}		-55 to +150		¢J

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Thermal Resistance Junction to Ambient and from junction to lead at 0.375"(9.5mm) lead length P.C.B mounted.

RATING AND CHARACTERISTIC CURVES

BY127M, BY133, EM513

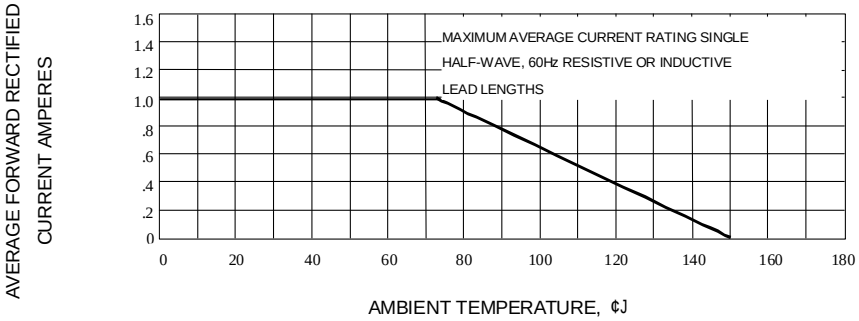


Fig. 1-TYPICAL FORWARD CURRENT DERATING CURVE

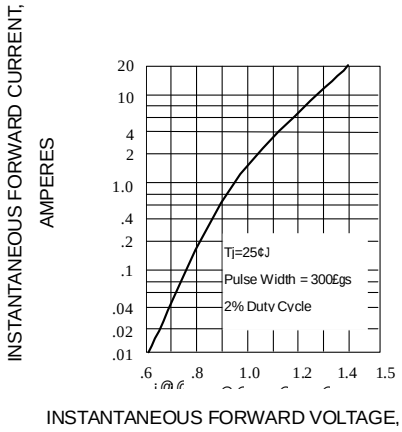


Fig. 2-TYPICAL FORWARD CHARACTERISTICS

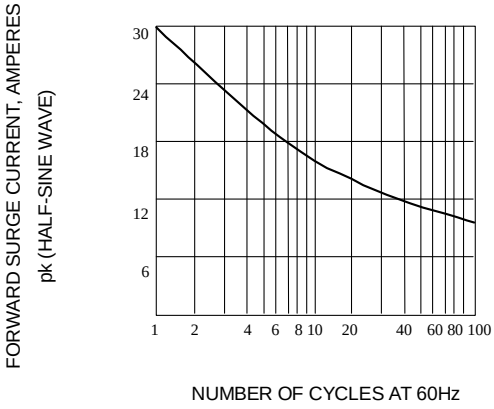


Fig. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

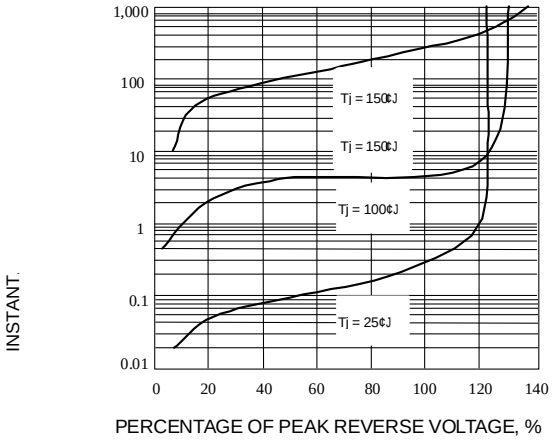


Fig. 4-TYPICAL REVERSE CHARACTERISTICS

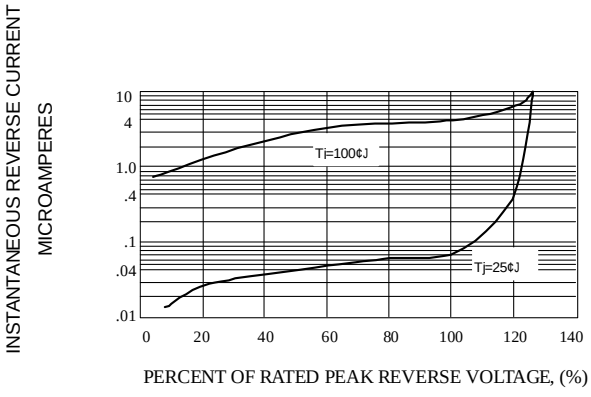


Fig. 5-TYPICAL REVERSE CHARACTERISTICS