

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

MECHANICAL DATA

Case: Molded plastic , DO-41

Epoxy: UL 94V-O rate flame retardant

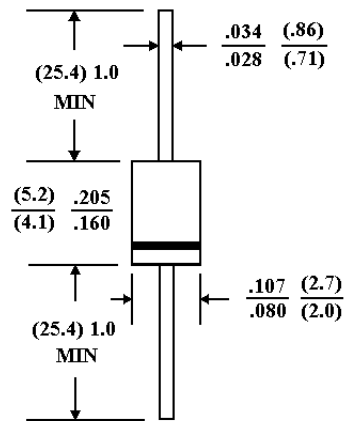
Lead: Axial leads, solderable per MIL-STD-202,
method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.012 ounce, 0.3 gram

DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ºC 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 ºC	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 ºC	1.1			V
Maximum Reverse Current at T _A =25 ºC	5.0			µg A
At Rated DC Blocking Voltage T _A =100 ºC	500			µg A
Typical Junction capacitance (Note 1)	15			pF
Typical Thermal Resistance (Note 2) R _{θJKJA}	50			ºC/W
Typical Thermal resistance (NOTE 2) R _{θKJL}	25			ºC/W
Operating and Storage Temperature Range T _J ,T _{STG}	-55 to +150			ºC

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

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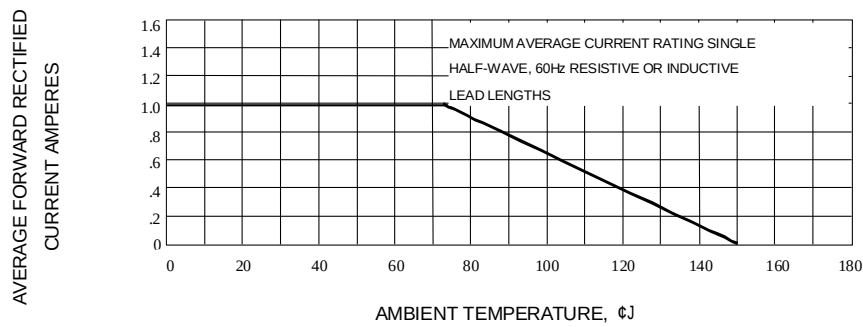


Fig. 1-TYPICAL FORWARD CURRENT DERATING CURVE

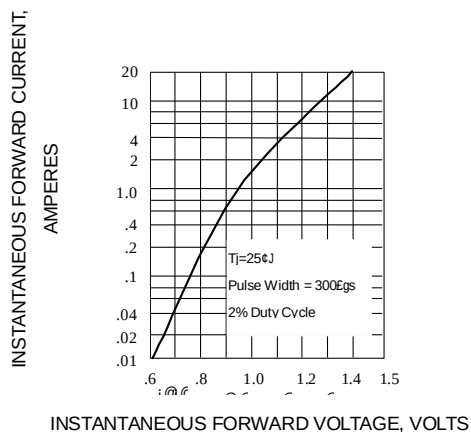


Fig. 2-TYPICAL FORWARD CHARACTERISTICS

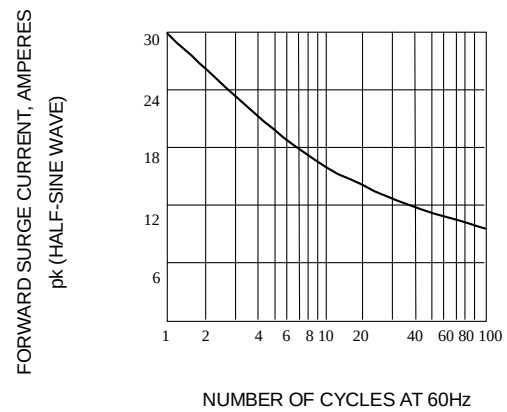


Fig. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

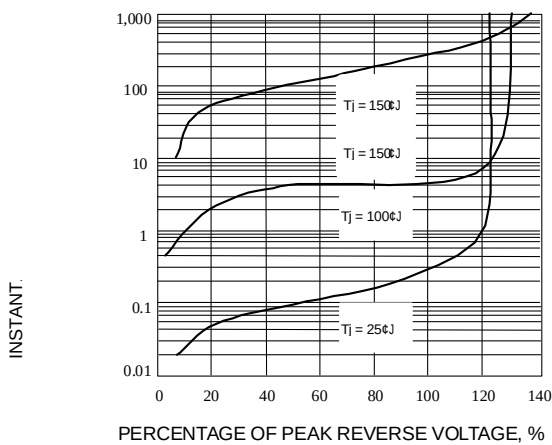


Fig. 4-TYPICAL REVERSE CHARACTERISTICS

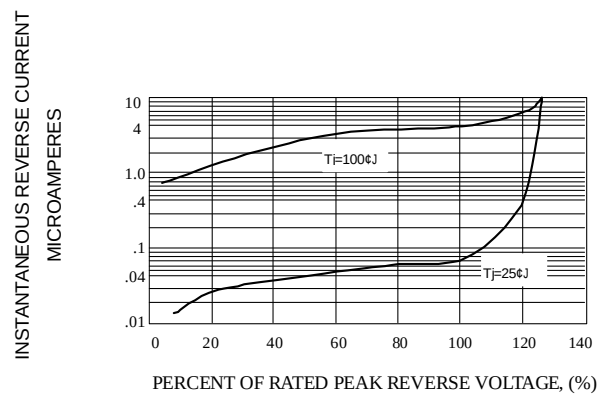


Fig. 5-TYPICAL REVERSE CHARACTERISTICS