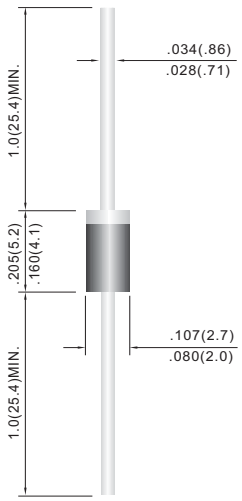
BY127M,BY133,EM513

PLASTIC SILICON RECTIFIERS

VOLTAGE 1250 to 1600 Volts **CURRENT** 1.0 Ampere

DO-41 Unit: inch(mm)



FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Exceeds environmental standards of MIL-S-19500/228
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: DO-41 Molded plastic
- Epoxy: UL 94V-O rate flame retardant.
- Lead: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.012 ounces, 0.30 gram

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%.

PARAMETER	SYMBOL	BY127M	BY133	EM513	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1250	1300	1600	V
Maximum RMS Voltage	V_{RMS}	875	910	1120	V
Maximum DC Blocking Voltage	V_{DC}	1250	1300	1600	V
Maximum Average Forward Current .375"(9.5mm) lead length at T_A=75°C	$I_{F(AV)}$	1.0			A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	30			A
Maximum Forward Voltage at 1.0A	V_F	1.1			V
Maximum DC Reverse Current at T_J=25°C Rated DC Blocking Voltage T_J=100°C	I_R	5.0 500			μA
Typical Junction capacitance (Note 1)	C_J	15			pF
Typical Thermal Resistance(Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	50 25			°C / W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to +150			°C

NOTES:

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

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RATING AND CHARACTERISTIC CURVES

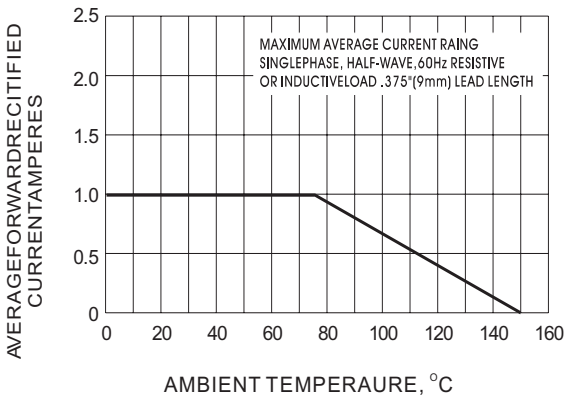

Fig.1-FORWARD CURRENT DERATING CURVE

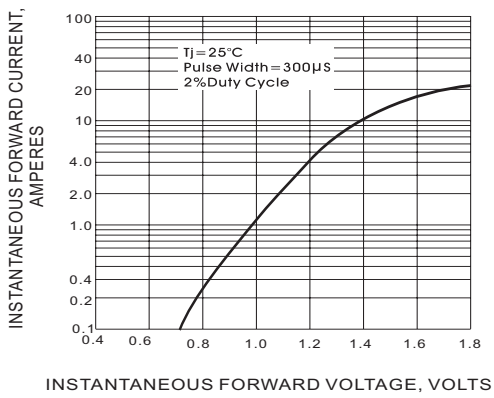

Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

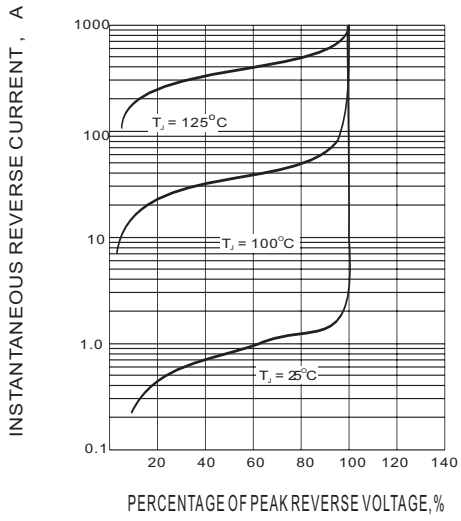

Fig.3-TYPICAL REVERSE CHARACTERISTIC

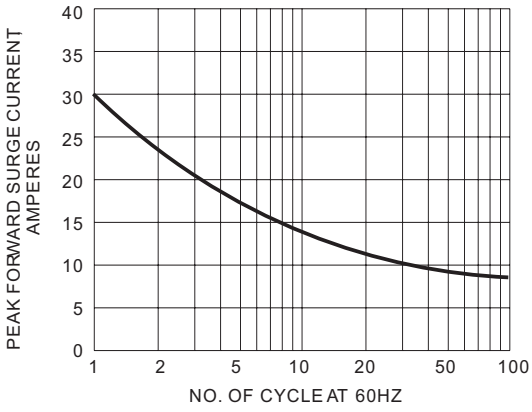

Fig.4-MAXIMUMNON-REPETITIVE SURGE CURRENT

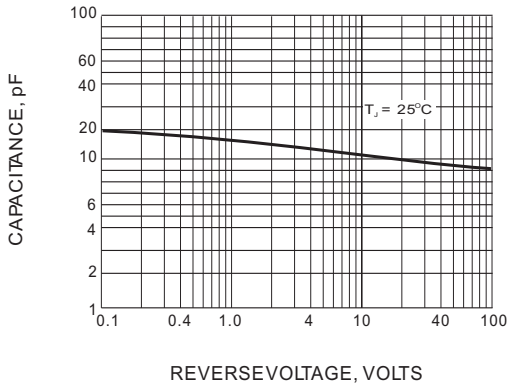

Fig.5-TYPICAL JUNCTION CAPACITANCE