BY127/BY133

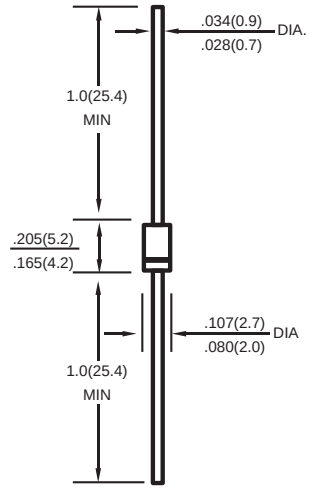
General Purpose Silicon Rectifier

VOLTAGE RANGE 1250 to 1300 Volts
CURRENT 1.0 Ampere

Features

- High reverse voltage
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
- 260°C/10 seconds/0.375″(9.5mm)lead length at 5 lbs (2,3kg) tension

DO-41



Dimensions in inches and (millimeters)

Mechanical Data

- **Case:**Transfer molded plastic
- **Epoxy:**UL94V-0 rate flame retardant
- **Polarity:**Color band denotes cathode end
- **Mounting position:**Any
- **Weight:**0.35 gram

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase,half wave,60Hz,resistive or inductive load.
For capacitive load derate current by 20%.

Type Number		SYMBOLS	BY127	BY133	UNITS
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	1250	1300	Volts
Maximum RMS Voltage		V_{RMS}	875	910	Volts
Maximum DC Blocking Voltage		V_{DC}	1250	1300	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at T_A=75°C		$I_{(AV)}$	1.0		Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	30		Amps
Maximum Instantaneous Forward Voltage at 1.0A		V_F	1.1		Volts
Maximum DC Reverse Current at rated DC blocking voltage	T_A=25°C	I_R	5.0		μAmps
	T_A=100°C		50		
Maximum Full Load Reverse Current,full cycle average 0.375" (9.5mm) lead length at T_L=75°C		$I_{R(AV)}$	30		μAmps
Typical Junction Capacitance(NOTE1)		C_J	15		pF
Typical Thermal Resistance(NOTE2)		$R_{\theta JA}$	50		°C/W
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 4.0 Volts.
2.Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length,P.C.board mounted.

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FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

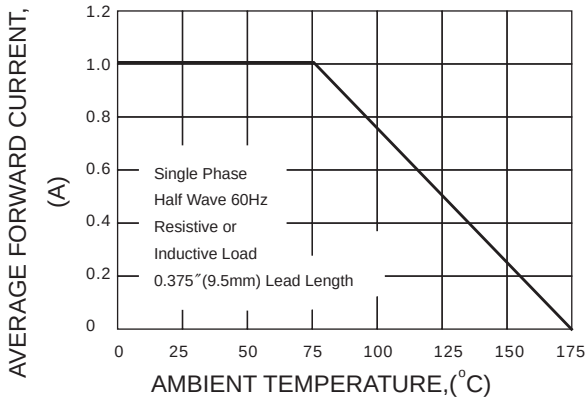

FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

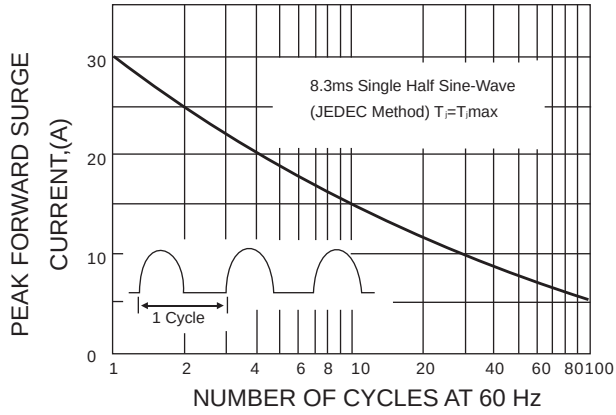

FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

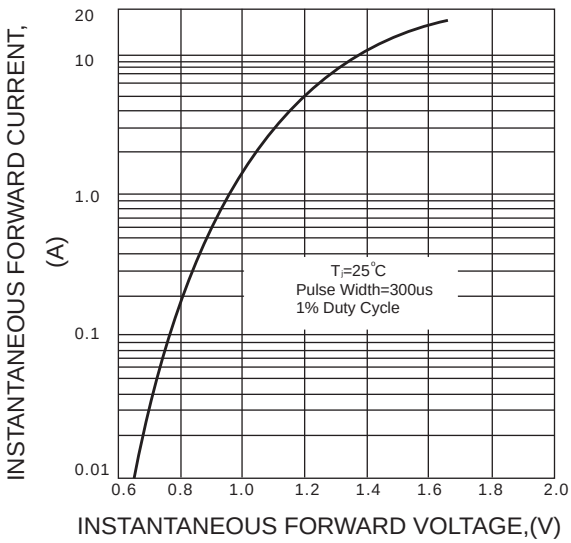

FIG.4-TYPICAL REVERSE CHARACTERISTICS

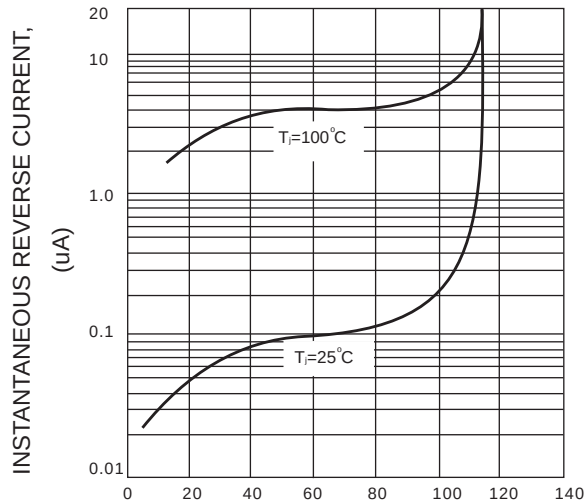

FIG.5-TYPICAL JUNCTION CAPACITANCE