



## AXIAL SILASTIC GUARD JUNCTION STANDARD RECTIFIER

BY127 THRU BY133

VOLTAGE RANGE  
CURRENT

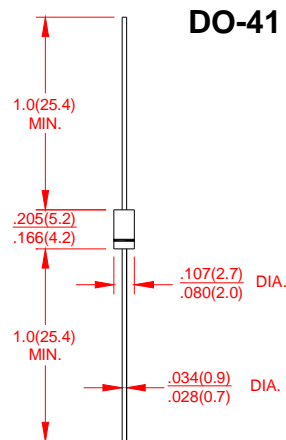
1250 to 1300 Volts  
1.0 Ampere

### FEATURES

- Low coat construction
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:  
260°C/10 secods/.375"(9.5mm)lead length at 5 lbs(2.3kg) tension

### MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.012 ounce, 0.33 grams



Dimensions in inches and (millimeters)

### 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%

		SYMBOLS	BY127	BY133	UNIT
Maximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	1250	1300	Volts
Maximum RMS Voltage		V <sub>RMS</sub>	875	910	Volts
Maximum DC Blocking Voltage		V <sub>DC</sub>	1250	1300	Volts
Maximum Average Forward Rectified Current 0.375"(9.5mm) lead length at T <sub>A</sub> = 25°C		I <sub>(AV)</sub>	1.0		Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I <sub>FSM</sub>	30		Amps
Maximum Instantaneous Forward Voltage @ 1.0A		V <sub>F</sub>	1.1		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	T <sub>A</sub> = 25°C	I <sub>R</sub>	5.0		μA
	T <sub>A</sub> = 100°C		50		
Maximum Full Load Reverse Current, full cycle average 0.375"(9.5mm)lead length at T <sub>L</sub> =75°C		I <sub>R(AV)</sub>	30		μA
Typical Junction Capacitance (Note 1)		C <sub>J</sub>	15		pF
Typical Thermal Resistance (Note 2)		R <sub>θJA</sub>	50		°C/W
Operating Junction Temperature Range		T <sub>J</sub>	-55 to +150		°C
Storage Temperature Range		T <sub>STG</sub>	-55 to +150		°C

#### Notes:

1. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.
2. Thermal Resistance from junction to ambient at .375"(9.5mm) lead length, P.C.board mounted.



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## RATING AND CHARACTERISTIC CURVES BY127 Thru BY133

FIG.1-TYPICAL FORWARD CURRENT  
DERATING CURVE

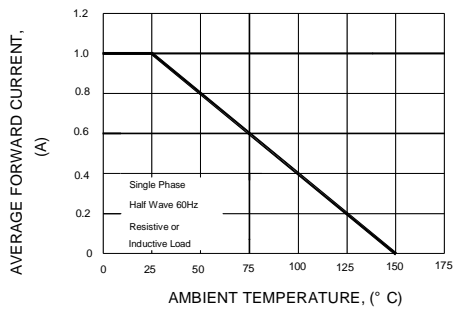


FIG.2-MAXIMUM NON-REPETITIVE PEAK  
FORWARD SURGE CURRENT

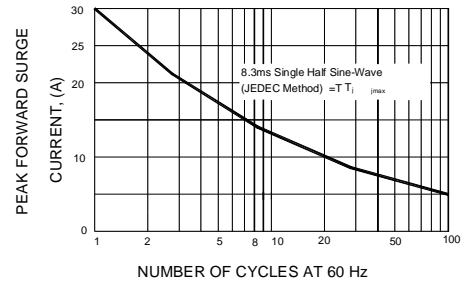


FIG.3-TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS

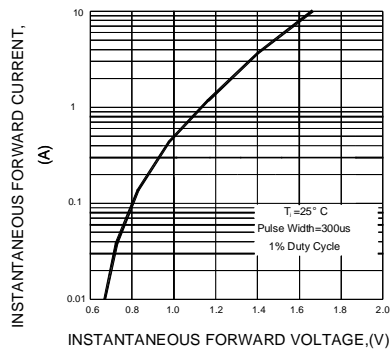


FIG.4-TYPICAL REVERSE  
CHARACTERISTICS

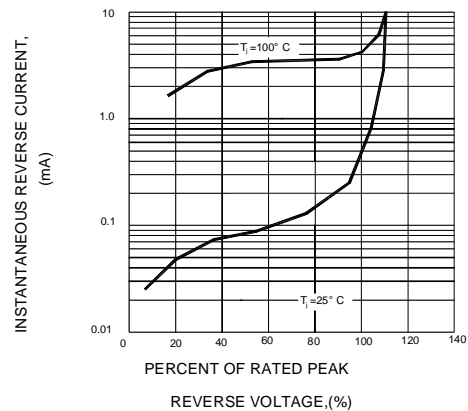


FIG.5-TYPICAL JUNCTION CAPACITANCE

