

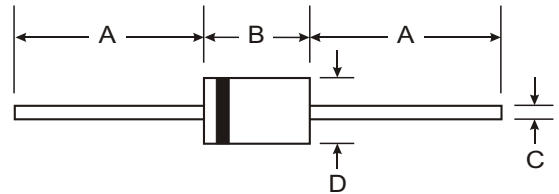
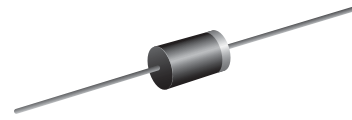
**VOLTAGE RANGE: 1250V**  
**CURRENT: 1.0 A**

### Features

- Molded case feature for auto insertion
- High current capability
- Low leakage current
- High surge capability
- High temperature soldering guaranteed:  
250 °C/10sec/0.375" (9.5mm) lead length at 5 lbs tension
- tension

### Mechanical Data

- Case: JEDEC DO -41, molded plastic
- Terminals: Axial lead, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode
- Weight: 0.012 ounces, 0.34 grams
- Mounting position: Any



DO-41		
Dim	Min	Max
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

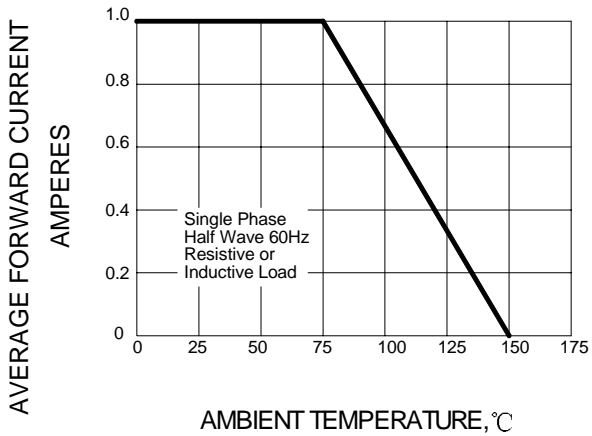
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	BY127M	Unit
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	1250	V
Maximum RMS voltage	V <sub>RMS</sub>	875	V
Maximum DC blocking voltage	V <sub>DC</sub>	1250	V
Maximum average forward rectified current 9.5mm lead length, @T <sub>A</sub> =75°C	I <sub>F(AV)</sub>	1.0	A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T <sub>J</sub> =125°C	I <sub>FSM</sub>	30.0	A
Maximum instantaneous forward voltage @ 1.0 A	V <sub>F</sub>	1.1	V
Maximum reverse current @T <sub>A</sub> =25°C at rated DC blocking voltage @T <sub>A</sub> =100°C	I <sub>R</sub>	5.0 50.0	μA
Typical junction capacitance (Note1)	C <sub>J</sub>	10	pF
Typical thermal resistance (Note2)	R <sub>θJA</sub>	50	°C/W
Operating junction temperature range	T <sub>J</sub>	- 55 ---- + 150	°C
Storage temperature range	T <sub>STG</sub>	- 55 ---- + 150	°C

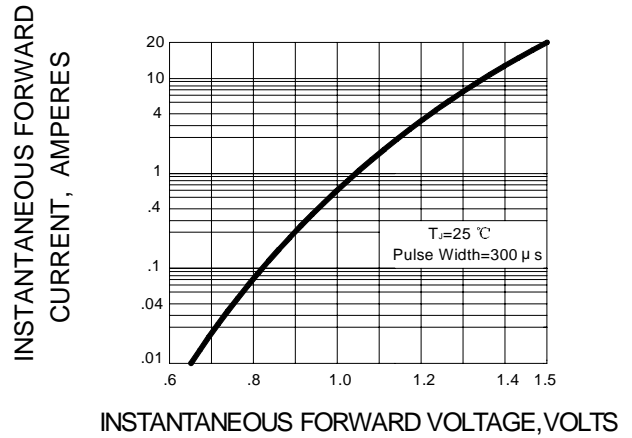
NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.board mounted

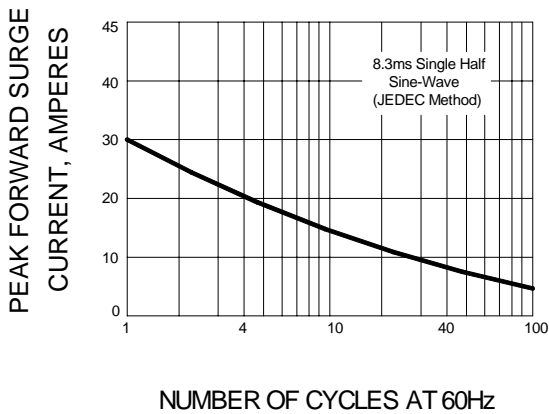
**FIG.1 – TYPICAL FORWARD CURRENT DERATING CURVE**



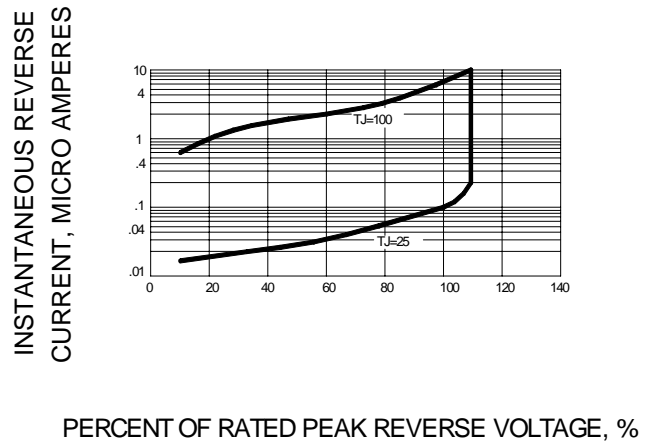
**FIG.2 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.3 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



**FIG.5 – TYPICAL JUNCTION CAPACITANCE**

