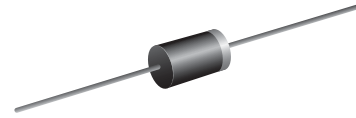


**VOLTAGE RANGE: 100 - 1000V**  
**CURRENT: 1.0 A**

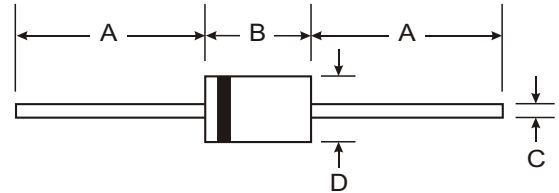


### Features

- Low cost
- Diffused junction
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

### Mechanical Data

- Case: DO - 4 1 Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.34 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



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

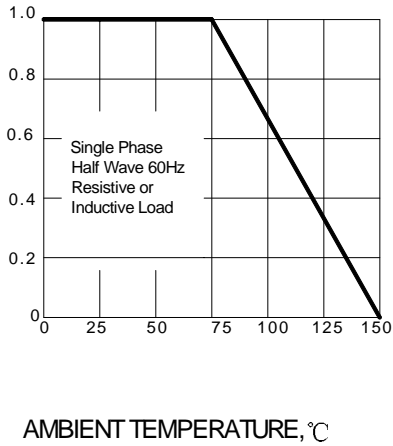
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	EM1Y	EM1Z	EM1	EM1A	EM1B	EM1C	Unit
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	100	200	400	600	800	1000	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>F(SM)</sub>	45.0						A
Maximum instantaneous forward voltage @ 1.0 A	V <sub>F</sub>	0.97						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>	15						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

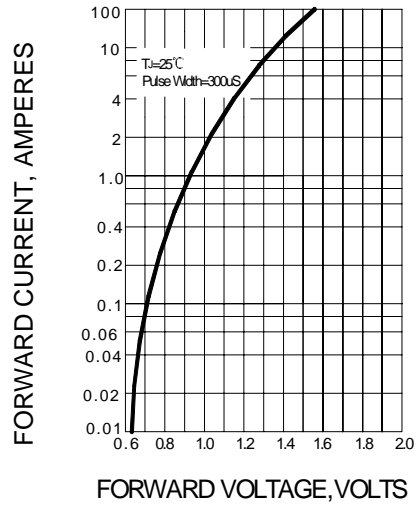
NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
 2. Thermal resistance from junction to ambient.

**FIG.1 – FORWARD DERATING CURVE**

AVERAGE FORWARD CURRENT, AMPERES

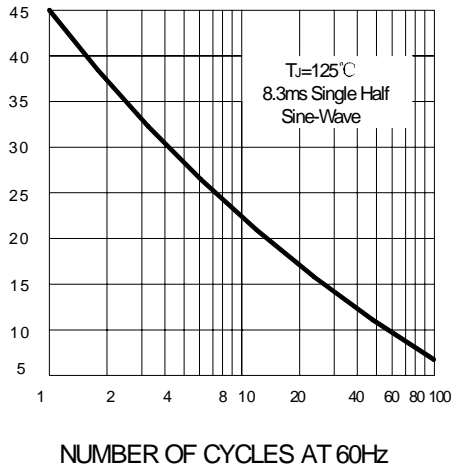


**FIG.2 – TYPICAL FORWARD CHARACTERISTICS**



**FIG.3 – PEAK FORWARD SURGE CURRENT**

PEAK FORWARD SURGE CURRENT  
AMPERES



**FIG.5 – TYPICAL JUNCTION CAPACITANCE**

