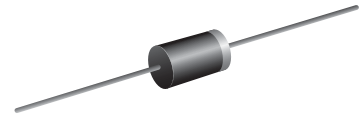


**VOLTAGE RANGE: 50 - 1000V**

**CURRENT: 1.0 A**

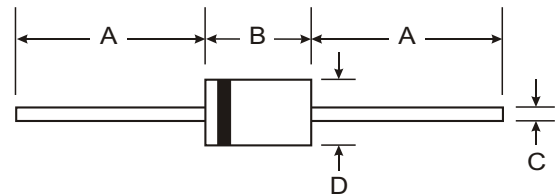


### Features

- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

### Mechanical Data

- Case: DO-41, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Approx. Weight: 0.35 grams
- 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	M100A	M100B	M100D	M100G	M100J	M100K	M100M	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>A</sub> =100°C	I <sub>(AV)</sub>	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at T <sub>A</sub> =75°C	I <sub>FSM</sub>	50.0							A
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	1.0					1.1		V
Maximum full load reverse current full cycle average 0.375" (9.5mm) lead length at T <sub>A</sub> =55°C	I <sub>R(AV)</sub>	100.0							μA
Maximum DC reverse current at rated DC blocking voltage <small>T<sub>A</sub>=25°C T<sub>A</sub>=100°C</small>	I <sub>R</sub>	1.0 50.0							μA
Typical reverse recovery time (NOTE 1)	t <sub>rr</sub>	2.0							μs
Typical junction capacitance (NOTE)2	C <sub>J</sub>	15.0							pF
Typical thermal resistance (NOTE 3)	R <sub>θJA</sub> R <sub>θJL</sub>	50.0 25.0							°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-50 to +150							°C

**NOTES:**

- (1) Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=0.1A, I<sub>rr</sub>=0.25A
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted

## RATINGS AND CHARACTERISTIC CURVES M100A THRU M100M

FIG. 1 - FORWARD CURRENT DERATING CURVE

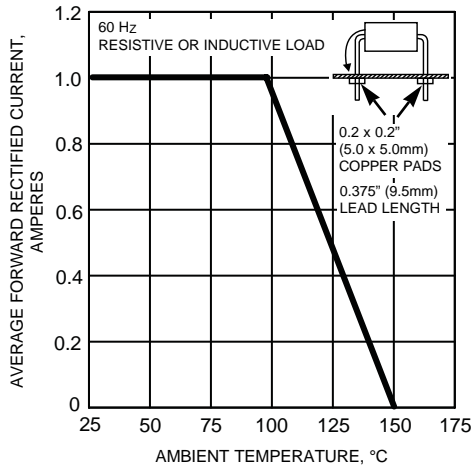


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

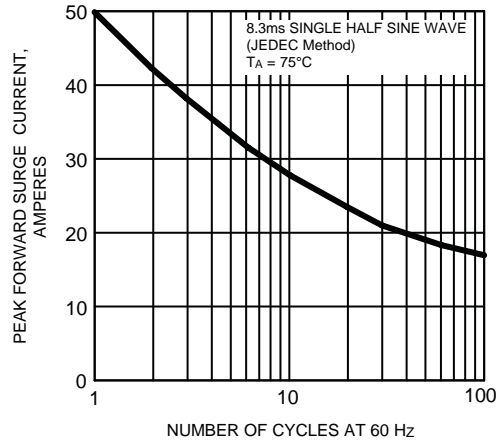


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

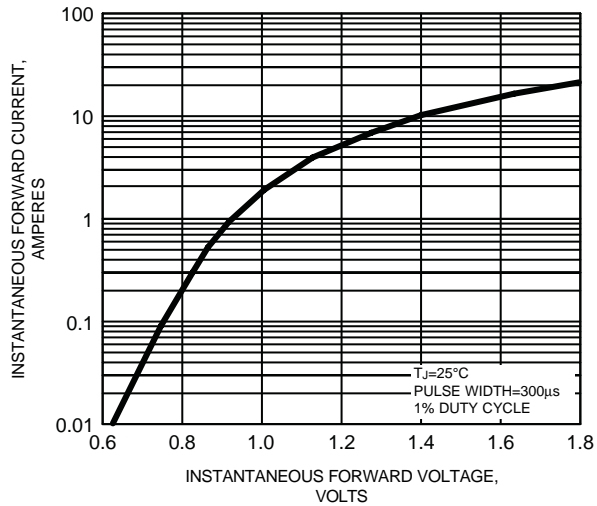


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

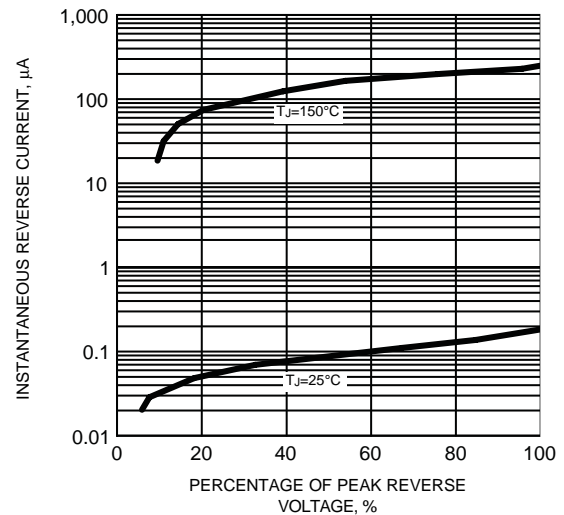


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

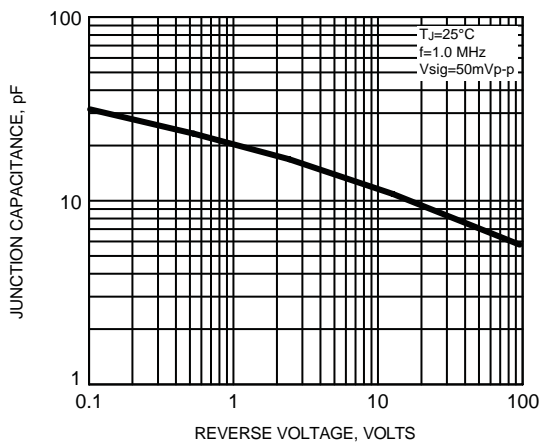


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

