

**Reverse Voltage: 20 to 200 Volts**  
**Forward Current: 2.0 Ampere**

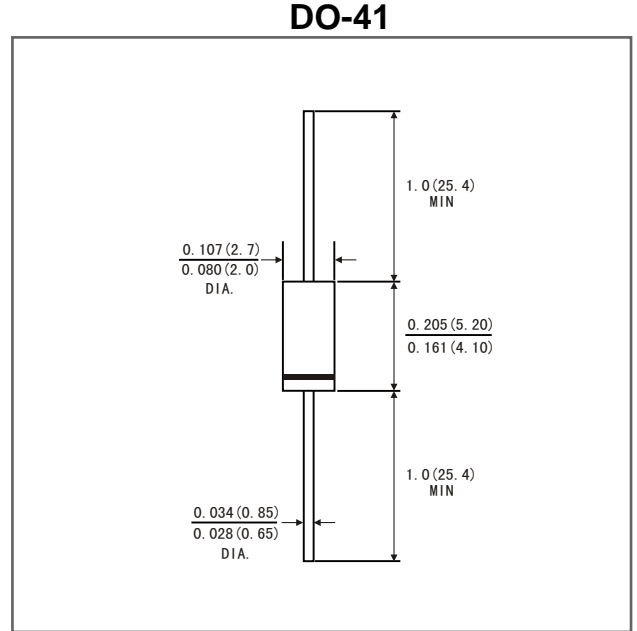
## Package outline

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Guard ring for overvoltage protection
- Low power loss, high efficiency
- High current capability, Low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed:  
260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

### Mechanical data

- Case: JEDEC DO-41 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.012 ounce, 0.33 gram



Dimensions in inches and (millimeters)

### Maximum Ratings And Electrical Characteristics

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

Type Number	Symbols	MBR 220 TG	MBR 230 TG	MBR 240 TG	MBR 250 TG	MBR 260 TG	MBR 280 TG	MBR 2100 TG	MBR 2150 TG	MBR 2200 TG	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	57	71	105	140	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	150	200	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length at T <sub>L</sub> =75°C	I <sub>(AV)</sub>	2.0									Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	50.0									Amps
Maximum instantaneous forward voltage at 2.0 A(Note 1)	V <sub>F</sub>	0.55		0.70		0.85		0.90		0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	I <sub>R</sub>	0.2									mA
		10									
Typical junction capacitance(Note 3)	C <sub>J</sub>	170									pF
Typical thermal resistance(Note 2)	R <sub>JA</sub>	50									°C/W
Operating junction temperature range	T <sub>J</sub>	-65 to +150									°C
Storage temperature range	T <sub>STG</sub>	-65 to +150									°C

Notes: 1.Pulse test: 300 μs pulse width, 1% duty cycle

2.Thermal resistance from junction to lead, and/or to ambient P.C.B. mounted with 0.375"(9.5mm) lead length with 1.5 X 1.5"(38X38mm) copper pads

3.Measured at 1.0MHz and reverse voltage of 4.0 volts

## Rating and characteristic curves

FIG.1-FORWARD CURRENT DERATING CURVE

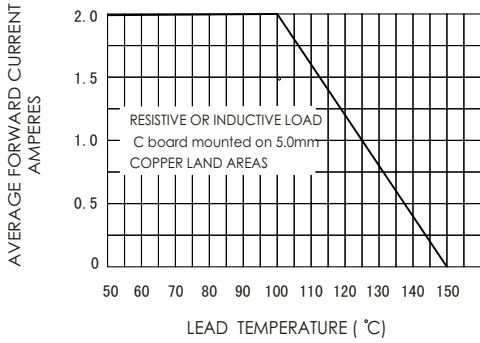


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

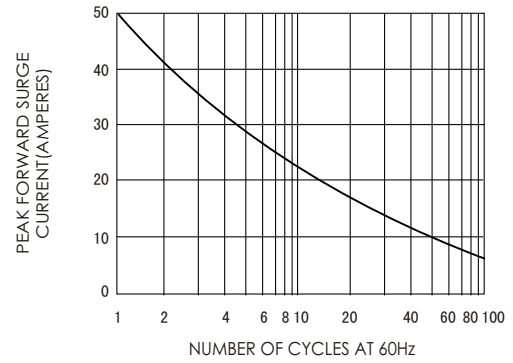


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

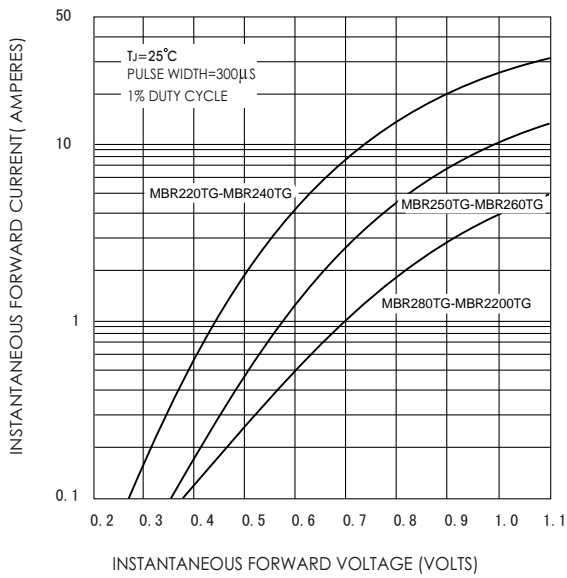


FIG.4-TYPICAL REVERSE CHARACTERISTICS

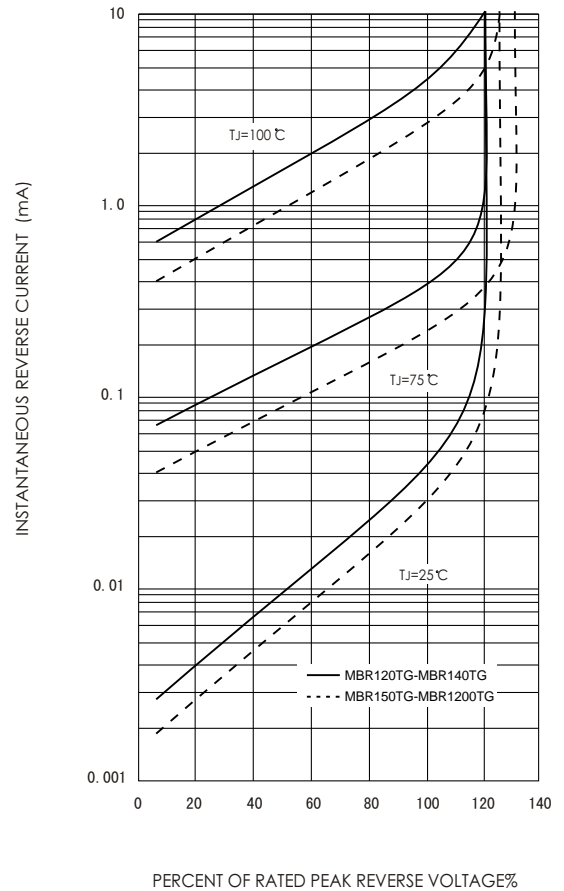


FIG.5-TYPICAL JUNCTION CAPACITANCE

