

REVERSE VOLTAGE: 20 to 100 VOLTS
FORWARD CURRENT: 1.0 AMPERE

FEATURES

- Surge overload rating: 30 amperes peak
- Ideal for printed circuit board
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Low leakage
- Reliable low cost construction utilizing molded

MECHANICAL DATA

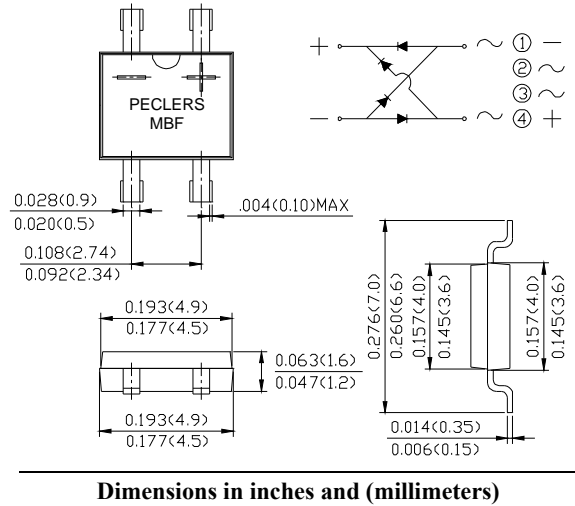
Case: Molded plastic, MBF

Epoxy: UL 94V-0 rate flame retardant

Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed

Mounting position: Any

Weight: 0.007ounce, 0.18gram



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	MB12F	MB14F	MB16F	MB18F	MB110F	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	Volts
Maximum RMS Voltage	V_{RMS}	14	28	42	56	70	Volts
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	Volts
Maximum average forward rectified current (0.2×0.2" (5.0×5.0mm) copper pad area (see Fig. 1)	$I_{(AV)}$	1.0					Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30					Amp
Maximum Forward Voltage at 1.0A (Note 1)	V_F	0.55		0.75		0.90	Volts
Maximum Reverse Current at Rated DC Blocking Voltage at $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	I_R	0.5 20.0					mAmp
Typical Junction Capacitance (Note 2)	C_J	250			125		pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	85 20					°C/W
Operating Junction Temperature Range	T_J	-55 ~ +125					°C
Storage Temperature Range	T_{stg}	-55 ~ +150					°C

NOTES:

1. Pulse test: 300μS pulse width, 1% duty cycle
2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts
3. Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2x0.2" (5.0x5.0mm) copper pad areas.

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 - Forward Current Derating Curve

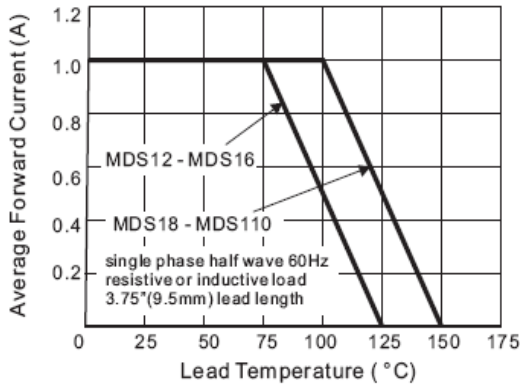


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

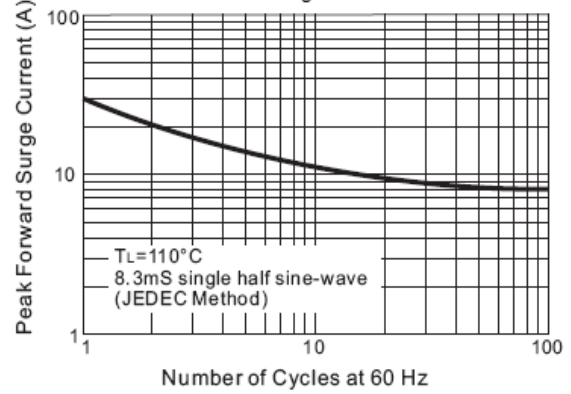


Fig. 3 - Typical Instantaneous Forward Characteristics

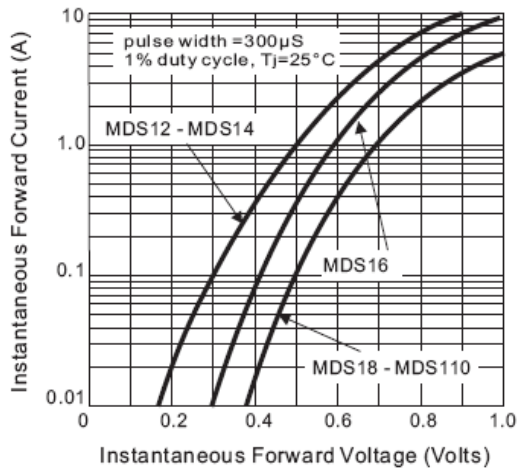


Fig. 4A - Typical Reverse Characteristics

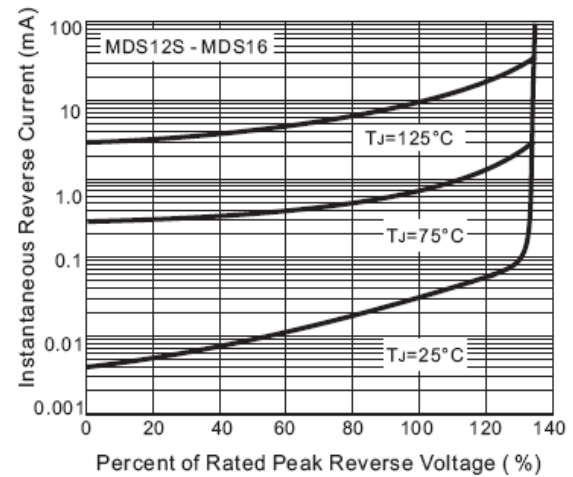


Fig. 5 - Typical Junction Capacitance

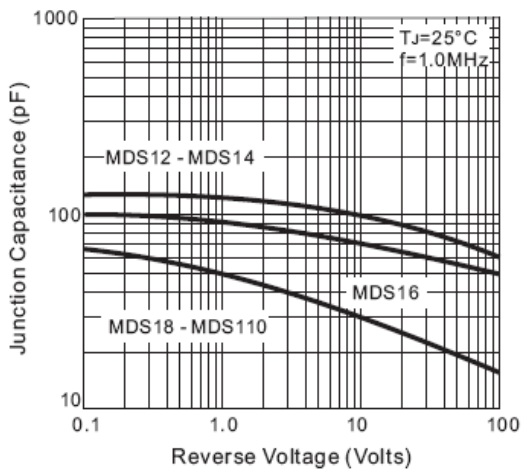


Fig. 4B - Typical Reverse Characteristic

