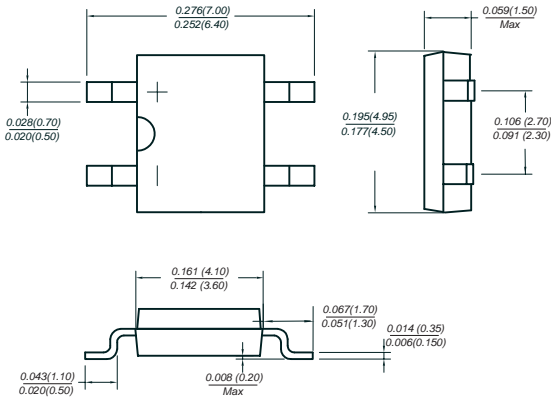


#### MBF



Dimensions in inches and (millimeters)

#### FEATURES

- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- High temperature soldering guaranteed: 260°C/10 seconds at 5 lbs., (2.3kg) tension
- Small size, simple installation
- Leads solderable per MIL-STD-202, Method 208
- High surge current capability
- Super fast switching for high efficiency
- Glass passivated chip junction
- Green compound(halogen&Sb<sub>2</sub>O<sub>3</sub> free)

#### MECHANICAL DATA

**Case:** Molded plastic body

**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026

**Polarity:** Polarity symbols marked on case

**Mounting Position:** Any

#### 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	EMB2F	EMB4F	EMB6F	EMB8F	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	100	200	400	600	V
Maximum RMS voltage	$V_{RMS}$	70	140	280	420	V
Maximum DC blocking voltage	$V_{DC}$	100	200	400	600	V
Maximum average forward rectified current On glass-epoxy P.C.B.(Note1) On aluminum substrate(Note2)	$I_{F(AV)}$		0.5 0.8			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$		30			A
Maximum instantaneous forward voltage drop per leg at 0.4A	$V_F$	0.95		1.25	1.7	V
Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=125^\circ C$	$I_R$		5.0 500			$\mu A$ $\mu A$
Typical thermal resistance(NOTE 3)	$R_{\theta JL}$ $R_{\theta JA}$		30 88			$^\circ C/W$
Maximum reverse recovery time (NOTE 4)	$t_{rr}$		35			ns
Operating temperature range	$T_J$		-55 to +150			$^\circ C$
storage temperature range	$T_{STG}$		-55 to +150			$^\circ C$

NOTES:1. On glass epoxy P.C.B. mounted on 0.05x0.05"(1.3x1.3mm) pads.

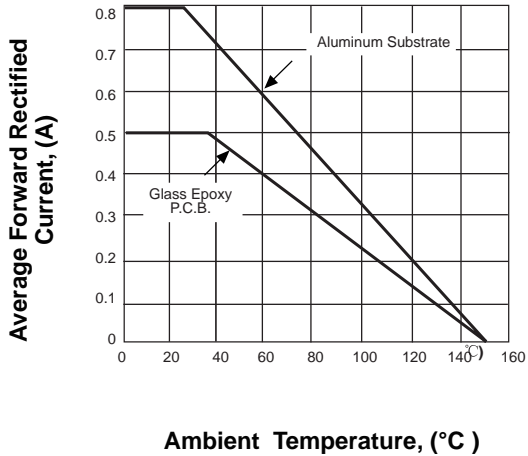
2. On aluminum substrate P.C.B. with an area of 0.8"x0.8"(20x20mm) mounted on 0.05X0.05"(1.3X1.3mm) solder pad.

3. Thermal resistance from junction to ambient and junction to lead mounted on P.C.B. with 0.2X0.2"(5X5mm) copper pads.

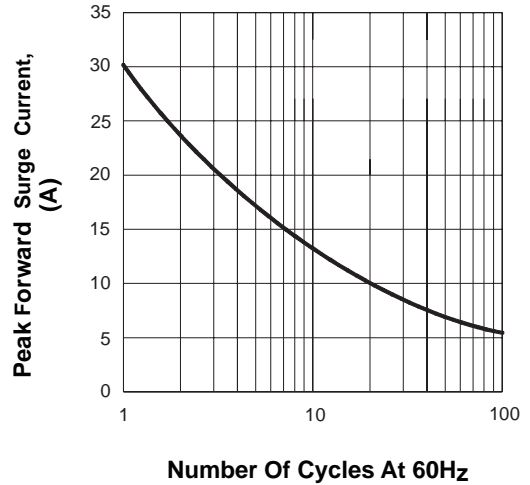
4. Reverse recovery condition  $I^F=0.5A, I^R=1.0A, I_{rr}=0.25A$ .

# RATINGS AND CHARACTERISTIC CURVES EMB2F THRU EMB8F

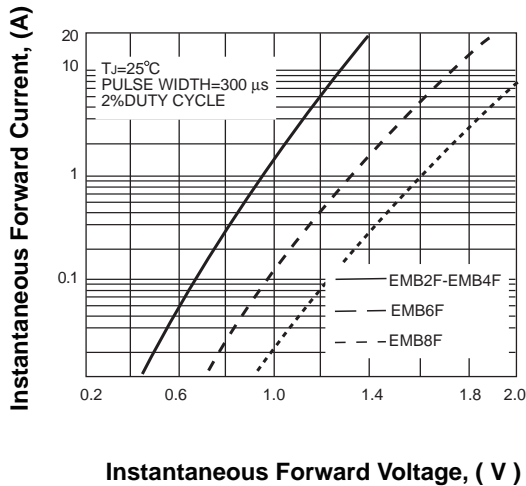
**FIG.1 FORWARD DERATING CURVE**



**FIG.2 PEAK FORWARD SURGE CURRENT**



**FIG.3 TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 TYPICAL REVERSE CHARACTERISTICS**

