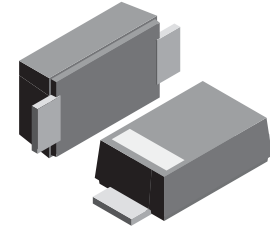


VOLTAGE RANGE: 20 - 100V
CURRENT: 1.0 A

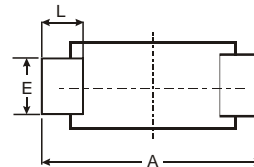
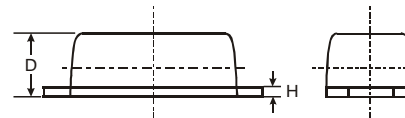
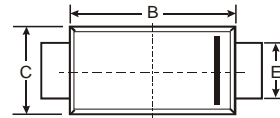


Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High forward 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: SMAF, Molded Plastic
- Terminals: Solder Plated, Solderable
 per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.0018 ounce, 0.064 grams



SMAF			
Dim	Min	Max	Typ
A	4.75	4.85	4.80
B	3.68	3.72	3.70
C	2.57	2.63	2.60
D	0.097	1.03	1.00
E	1.38	1.42	1.40
H	0.13	0.17	0.15
L	0.63	0.67	0.65
All Dimensions in mm			

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

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

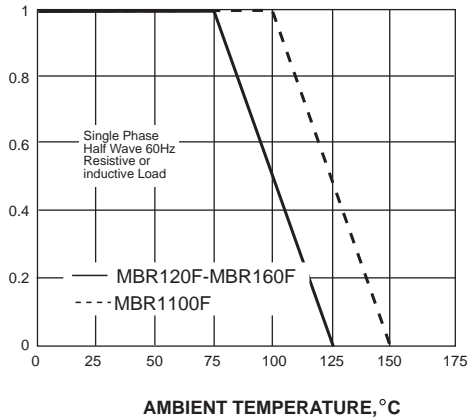
Characteristic	Symbol	MBR120F	MBR140F	MBR160F	MBR1100F	Unit	
	Marking	R12	R14	R16	R110		
Maximum repetitive peak reverse voltage	V _{RRM}	20	40	60	100	v	
Maximum RMS voltage	V _{RMS}	14	28	42	70	v	
Maximum DC blocking voltage	V _{DC}	20	40	60	100	v	
Maximum average forward rectified current	I _(AV)	1.0				A	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	25.0				A	
Maximum instantaneous forward voltage at 1.0A	V _F	0.55		0.70	0.85	v	
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	0.5			5.0	mA	
		10.0					
Typical junction capacitance (NOTE 1)	C _J	110		80		pF	
Operating junction temperature range	T _J	-65 to +125			-65 to +150		°C
Storage temperature range	T _{STG}	-65 to +150				°C	

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES MBR120F THRU MBR1100F

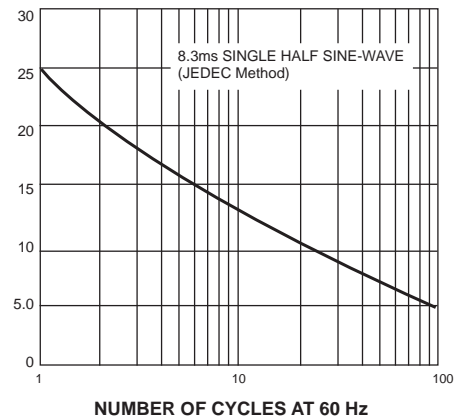
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



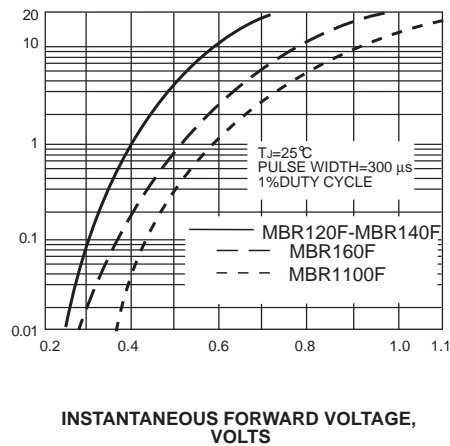
PEAK FORWARD SURGE CURRENT, AMPERES

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



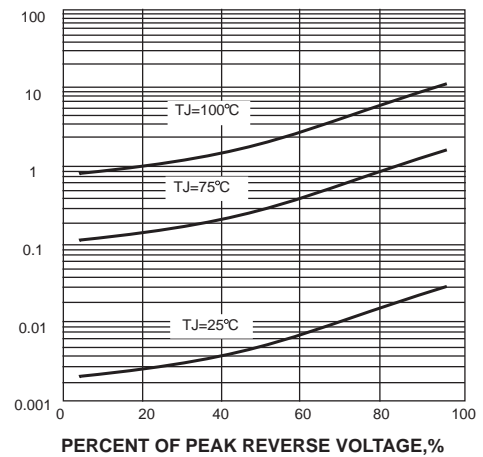
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE

