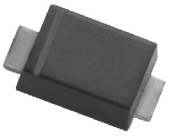
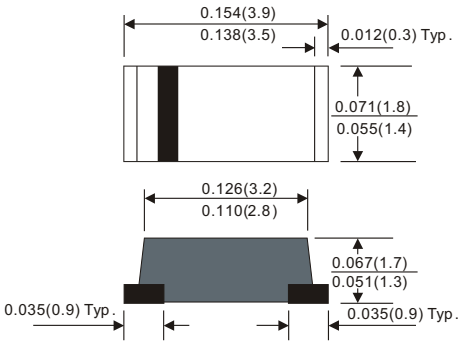
MBR120F thru MBR1100F

1.0A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER



SOD-123F



FEATURES

- Schott y barrier chip
- guard ring die construction for transient protection
- Low forward loss,high efficiency
- High surge capability
- High current capability and low forward voltage drop
- For use in low voltage,high fre uency inverters,free wheeling,and polarity protection application
- Plastic material UL flammability Classification rating 94V-0

MECHANICAL DATA

Case : SOD-123F Plastic
Lead : Solderable per MIL-STD-202, Method 208
Polarity : Cathode band
Mar ing Type Code
weight : 0 01 grams approx

MAXIMUM RATIXGS 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%

	Symbol	MBR120F	MBR140F	MBR160F	MBR1100F	Units
Repetitive Peak Reverse Voltage DC Blocking Voltage	VRRM VDC	20	40	60	100	V
RMS Reverse Voltage	VR(RMS)	14	28	42	70	V
Average Rectifier Output at T_L =90°C	IO	1.0				A
Non-Repetitive Peak Forward Surge Curren 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	IFSM	20				A
Typical Thermal Resistance Junction to AmBient Air	$R_{\theta JA}$	88				°C / W
Operating and Storage Temperature Range	T_{STG}	-55 to + 150				°C
		-55 to + 125		-55 to + 150		
Forward Voltage At 1.0A (Note 1)	VF	0.5	0.55	0.7	0.85	V
Reverse Leakage Current TJ=25°C	IR	0.2				mA
TJ=100 °C		10		5		
Marking Code		T2	T4	T6	TA	

NOTES :
1. Pulse test with 300 μS pulse width, 2% duty cycle

1.0A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

RATING AND CHARACTERISTICS CURVES MBR120F thru MBR1100F

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

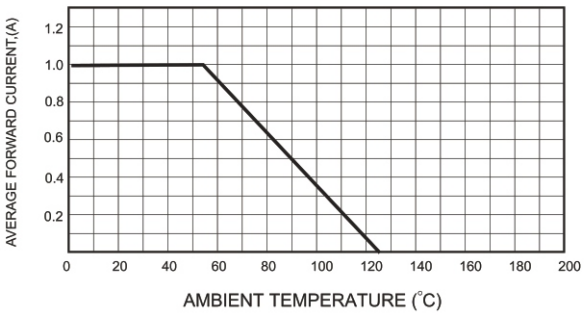


FIG.2-TYPICAL FORWARD CHARACTERISTICS

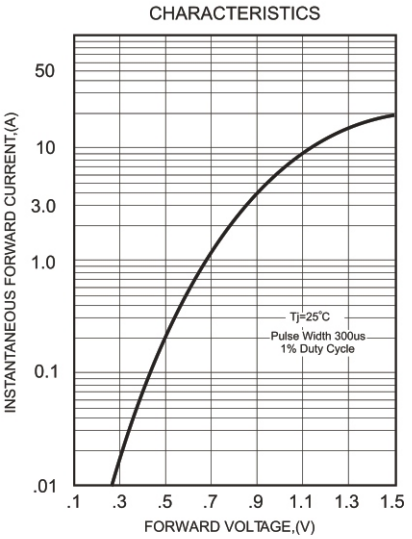


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

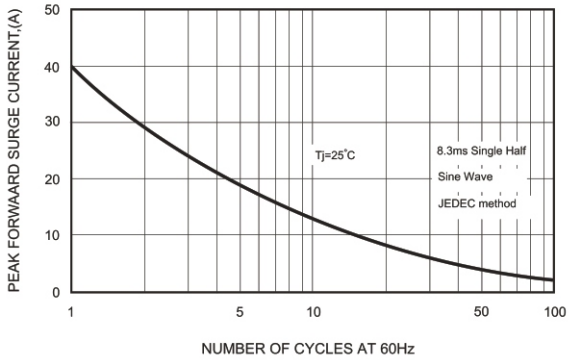


FIG.4-TYPICAL JUNCTION CAPACITANCE

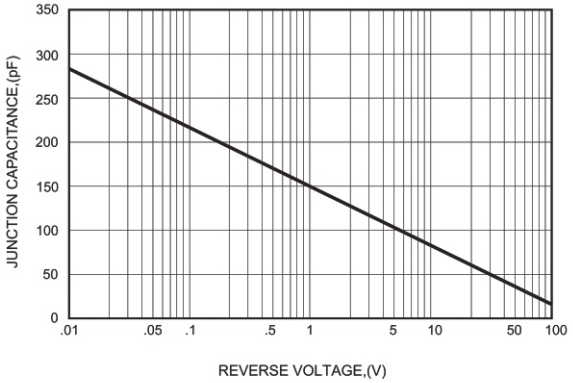


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

