

MB14L~MB120L

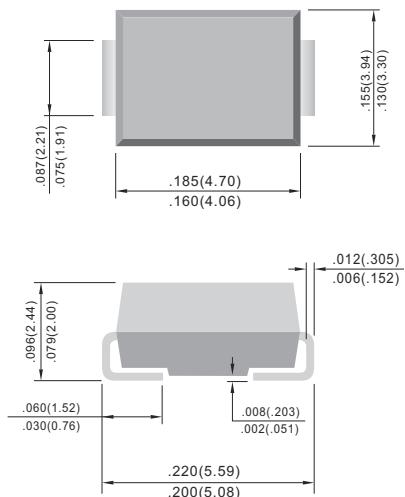
LOW VF SURFACE MOUNT SCHOTTKY RECTIFIER

VOLTAGE 40 to 200 Volts CURRENT 1.0 Amperes



SMB/DO-214AA

Unit : inch(mm)



FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier. majority carrier conduction
- Low power loss, high efficiency
- High surge capacity
- High current capacity, low VF
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Lead free in comply with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: JEDEC SMB/DO-214AA molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging: 12mm tape (EIA-481)

MAXIMUM RATINGS(T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	MB14L	MB15L	MB16L	MB18L	MB110L	MB115L	MB120L	LUNIT
Maximum repetitive peak reverse voltage	V _{RRM}	40	50	60	80	100	150	200	V
Maximum rms voltage	V _{RMS}	28	35	42	63	100	150	200	V
Maximum dc blocking voltage	V _R	40	50	60	80	100	150	200	V
Maximum average forward rectified current	I _{F(AV)}				1				A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I _{FSM}				30				A
Maximum thermal resistance	R _{θJA} R _{θJL}				120				°C/W
Operating junction temperature range	T _J				-55 to + 150				°C
Storage temperature range	T _{STG}				-55 to + 150				°C

ELECTRICAL CHARACTERISTICS(T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MB14L	MB15L	MB16L	MB18L	MB110L	MB115L	MB120L	LUNIT
Maximum instantaneous forward voltage (Notes 1)	V _F	I _F =1.0A	0.45	0.55	0.55	0.72	0.72	0.8	0.8	V
Maximum reverse current at rated peak reverse voltage	I _R	T _J =25°C T _J =100°C			0.2					mA

NOTES:

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

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RATING AND CHARACTERISTIC CURVES

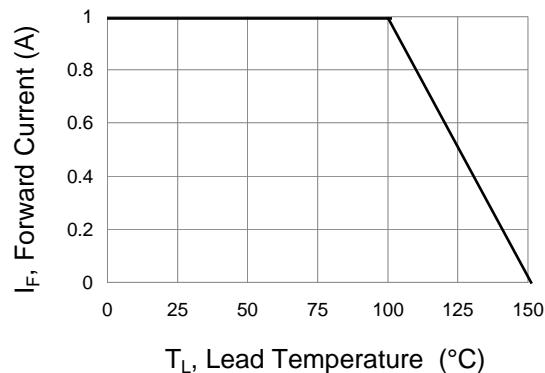


Fig.1 Forward Current Derating Curve

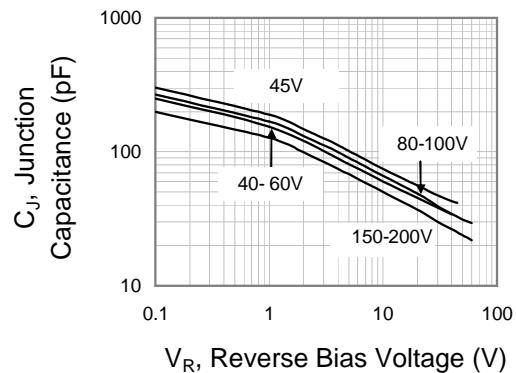


Fig.2 Typical Junction Capacitance

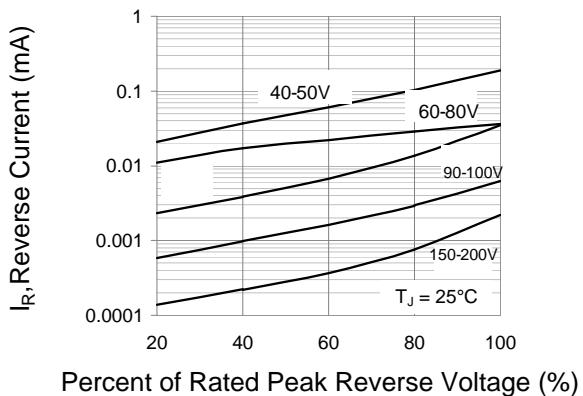


Fig.3 Typical Reverse Characteristics

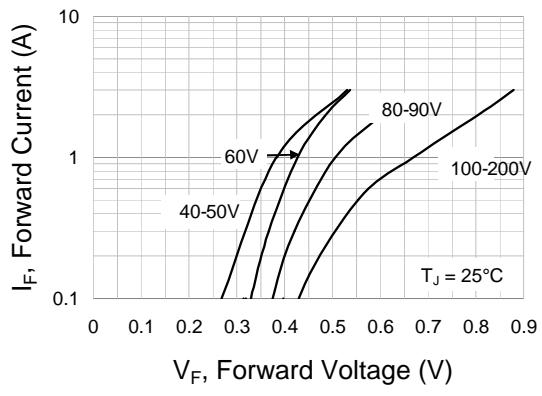


Fig.4 Typical Forward Characteristics

The curve graph is for reference only, can't be the basis for judgment