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MBR330FL Schottky Barrier Rectifiers

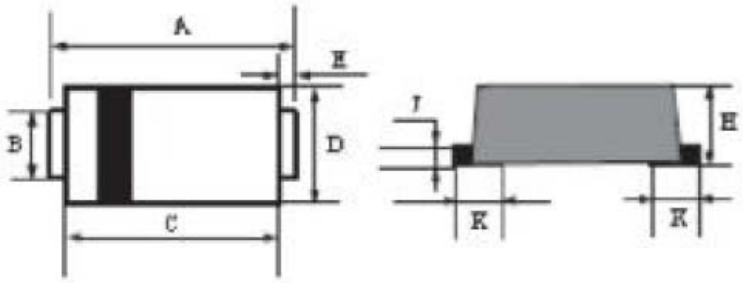
Features

- **Plastic package has Underwriters Laboratory Flammability Classification 94V-0**
- **Low power loss, high efficiency**
- **For use in low voltage high frequency inverters, free wheeling, and polarity protection applications**
- **Guardring for over voltage protection**
- **High temperature soldering guaranteed: 260˚C/10 seconds at terminals**
- **These Devices are Pb−Free and are RoHS Compliant**
- **All SMC parts are traceable to the wafer lot**
- **Additional testing can be offered upon request**

Mechanical Data

- **Case: SOD123-FL/MINI SMA molded plastic over sky die**
- **Terminals: Tin Plated, solderable per MIL-STD-750, Method 2026**
- **Polarity: Color band denotes cathode end**
- **Mounting Position: Any**
- **Weight: 0.0155 g Haloggen free (green epoxy compound)**
- **Handling precautin: None**

Mechanical Dimensions (In mm/Inches)



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	3.5	3.9	0.138	0.159
B	0.75	0.95	0.029	0.037
C	2.6	3.0	0.103	0.119
D	1.6	2.0	0.063	0.079
E	0.45Typ		0.018Typ	
H	0.9	1.2	0.036	0.047
J	0.12	0.22	0.005	0.009
K	0.8Typ		0.032Typ	

SOD-123-FL

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Marking Diagram:

Where XYY is Date Code

33 = Part Name
X = Yearly code
YY = Weekly code

Cautions：Molding resin
Epoxy resin UL: 94V-0

Ordering Information:

Device	Package	Shipping
MBR330FL	SOD-123-FL	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

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

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Maximum RMS Voltage Maximum DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
Maximum Average Rectified Forward Current at TA = 75°C	$I_{F(AV)}$	3	A
Forward Voltage @I_F = 3A,T_A = 25°C	V_{FM}	0.50	V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	0.5 20	mA
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80	A
Maximum Junction Capacitance (Note 1)	Cj	160	pF
Typical thermal resistance (Note 2)	$R_{\Theta JA}$ $R_{\Theta JC}$	110 40	°C/W
Operating Junction Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-65 to +175	°C
Case Style	SOD-123-FL		

Note1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. 8.0mm^2 (.013mm thick) land areas

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Fig. 1 – Forward Current Derating Curve

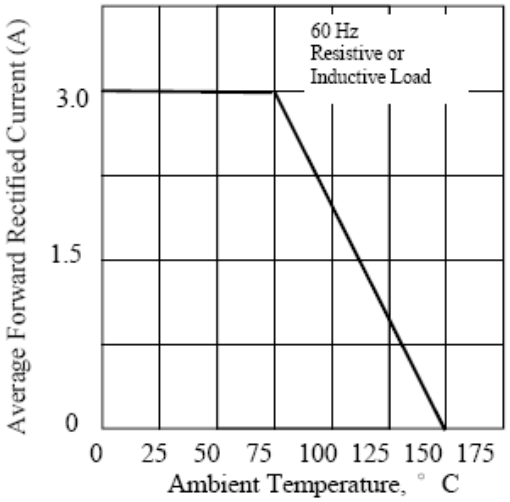


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

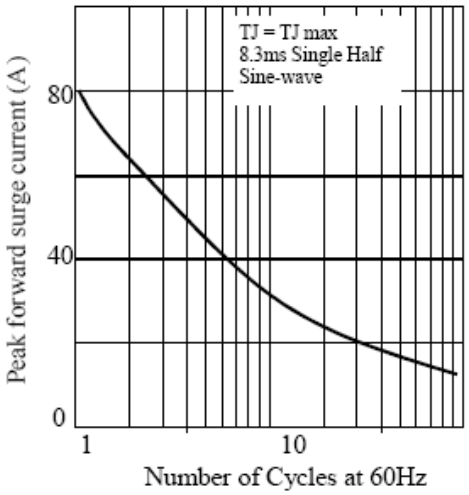


Fig 3. – Typical Instantaneous Forward Characteristics

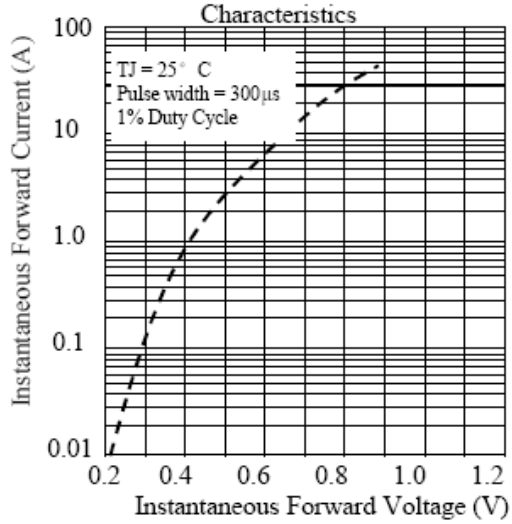


Fig 4. – Typical Reverse Characteristics

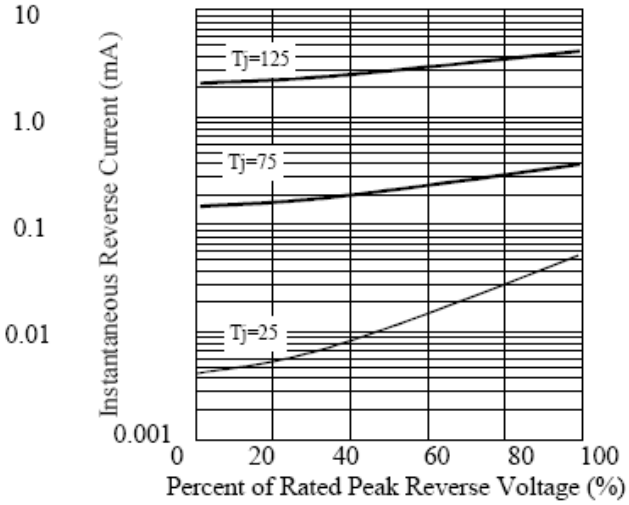


Fig 5. – typical transient thermal impedance

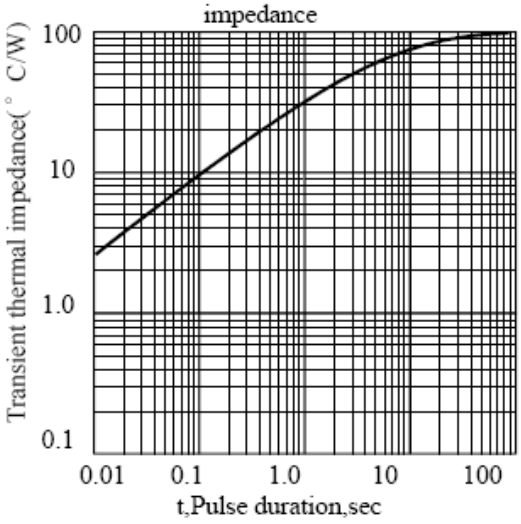
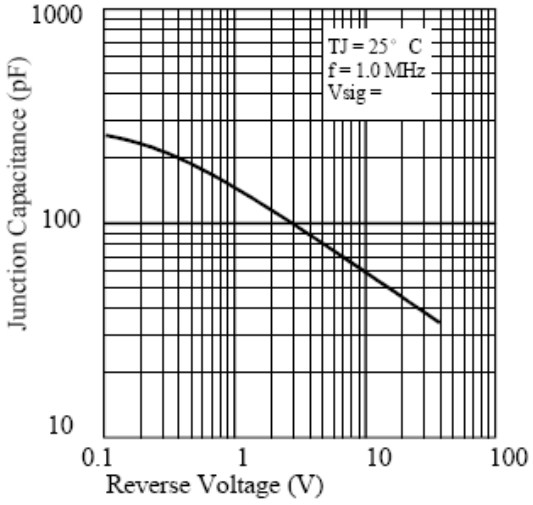


Fig 6. – Typical Junction Capacitance



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