

SCHOTTKY BARRIER RECTIFIER

FEATURES

- ◆ Guardring for Stress Protection
- ◆ Low Forward Voltage
- ◆ 125°C Operating Junction Temperature
- ◆ Epoxy Meets UL 94 V-0

Pinning

1.Cathode	2.Anode
SOD-123FL	

Marking Code

MBR230LSF	L3N
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Absolute Maximum Ratings Ta = 25°C

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
Average Rectified Forward Current (At Rated V_R , $T_L = 105^\circ\text{C}$)	I_O	2.0	A
Peak Repetitive Forward Current (At Rated V_R , Square Wave, 100 kHz, $T_L = 95^\circ\text{C}$)	I_{FRM}	4.0	A
Non-Repetitive Peak Surge Current (Non-Repetitive peak surge current, halfwave, single phase, 60 Hz)	I_{FSM}	40	A
Storage Temperature	T_{stg}	-55 to 150	°C
Operating Junction Temperature	T_J	-55 to 125	°C
Voltage Rate of Change (Rated V_R , $T_J = 25^\circ\text{C}$)	dv/dt	10,000	V/ μs

Electrical Characteristics (Ta = 25°C)

Maximum Instantaneous Forward Voltage (Note 3) ($I_F = 1.0\text{ A}$) ($I_F = 2.0\text{ A}$)	V_F	$T_J = 25^\circ\text{C}$	$T_J = 100^\circ\text{C}$	V
		0.38 0.43	0.30 0.37	
Maximum Instantaneous Reverse Current (Note 3) ($V_R = 30\text{ V}$)	I_R	$T_J = 25^\circ\text{C}$	$T_J = 100^\circ\text{C}$	mA
		1.0	25	

Typical Characteristics

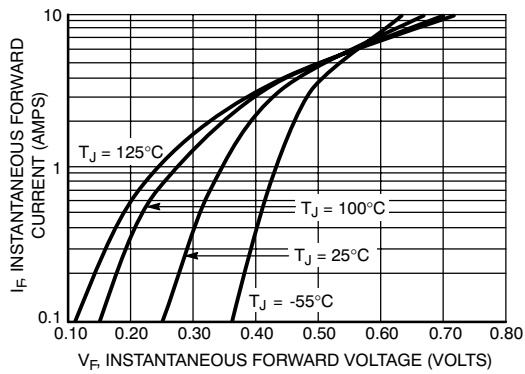


Figure 1. Typical Forward Voltage

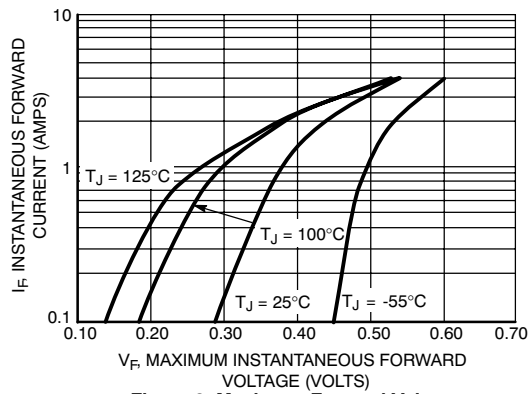


Figure 2. Maximum Forward Voltage

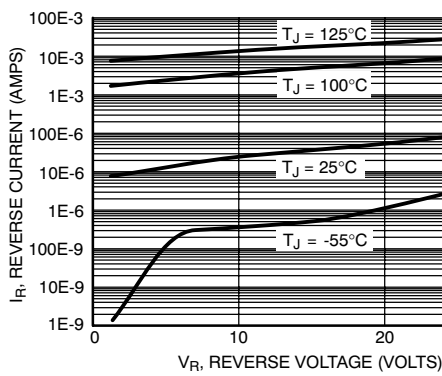


Figure 3. Typical Reverse Current

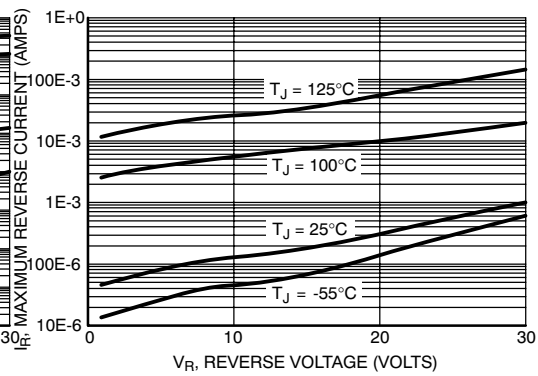


Figure 4. Maximum Reverse Current

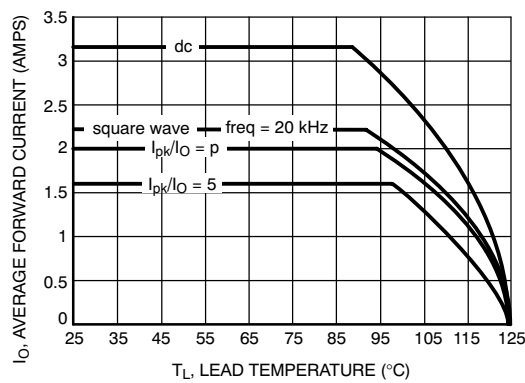


Figure 5. Current Derating

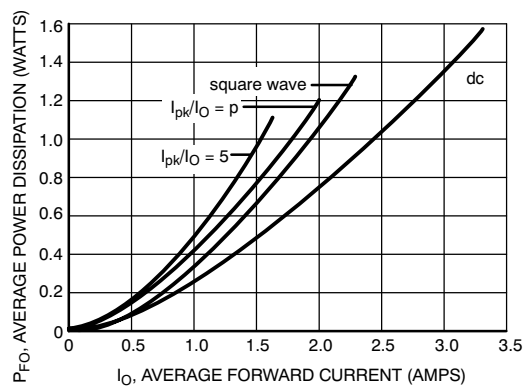
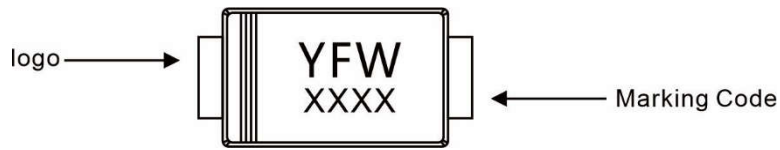


Figure 6. Forward Power Dissipation

Marking Diagram



Ordering information

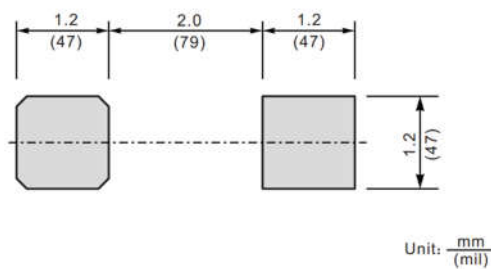
Package	Packing Description	Packing Quantity
SOD-123FL	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-123FL

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.3	35	43
C	0.12	0.20	4.7	7.9
D	2.6	2.9	102	114
E	1.7	1.9	67	75
e	0.8	1.1	31	43
g	0.7	0.9	28	35
HE	3.5	3.8	138	150
∠	7°			

The recommended mounting pad size



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