

## SCHOTTKY BARRIER RECTIFIERS

### FEATURES

- Metal silicon junction, majority carrier conduction
- Guarding for overvoltage protection
- Low power loss, high efficiency
- High current capability
- low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

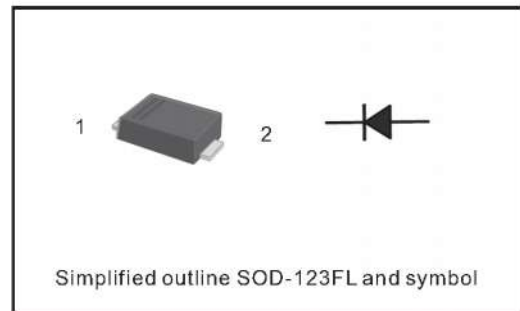
### MECHANICAL DATA

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 15mg 0.00048oz

### Maximum Ratings and Electrical characteristics

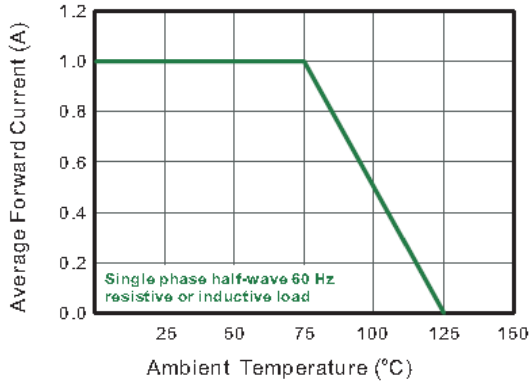
Ratings at 25 °C ambient temperature unless otherwise specified.

PIN	DESCRIPTION
1	Cathode
2	Anode

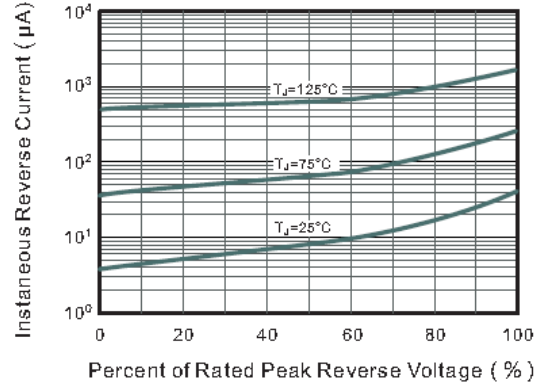


Parameter	Symbols	MBRX120	MBRX130	MBRX140	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length at $T_L = 90^\circ\text{C}$	$I_{F(AV)}$	1			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method) at $T_L = 70^\circ\text{C}$	$I_{FSM}$	25			A
Maximum Instantaneous Forward Voltage at 1 A Maximum Instantaneous Forward Voltage at 3.1 A	$V_F$	0.45 0.75	0.55 0.875	0.6 0.9	V
Maximum Instantaneous Reverse Current at $T_A = 25^\circ\text{C}$ Rated DC Reverse Voltage $T_A = 100^\circ\text{C}$	$I_R$	1 10			mA
Typical Junction Capacitance	$C_j$	110			pF
Storage and Operating Junction Temperature Range	$T_j, T_{stg}$	-55 ~ +125			$^\circ\text{C}$

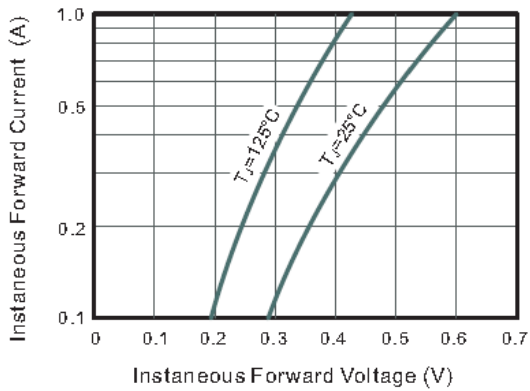
**Fig.1 Forward Current Derating Curve**



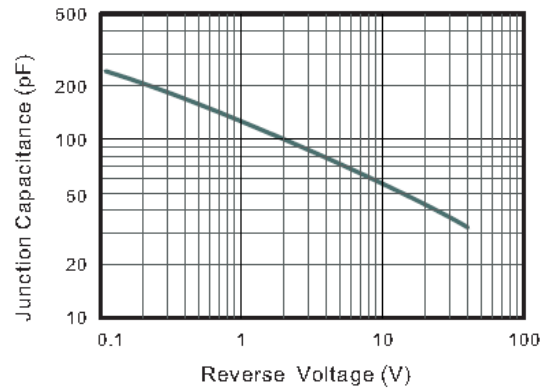
**Fig.2 Typical Reverse Characteristics**



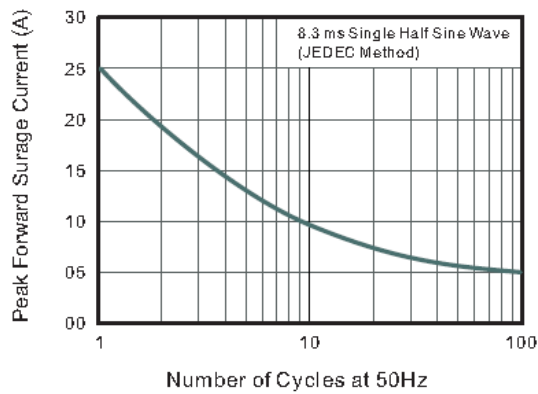
**Fig.3 Typical Forward Characteristic**



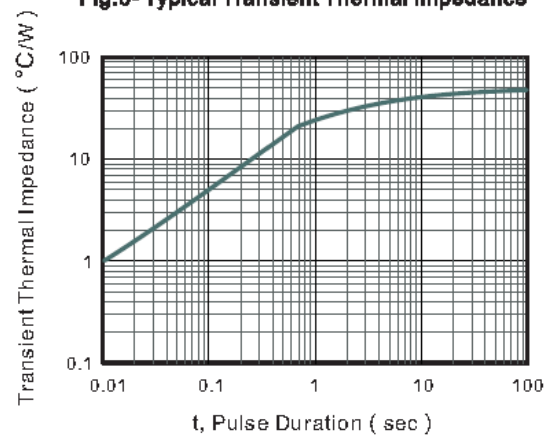
**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**

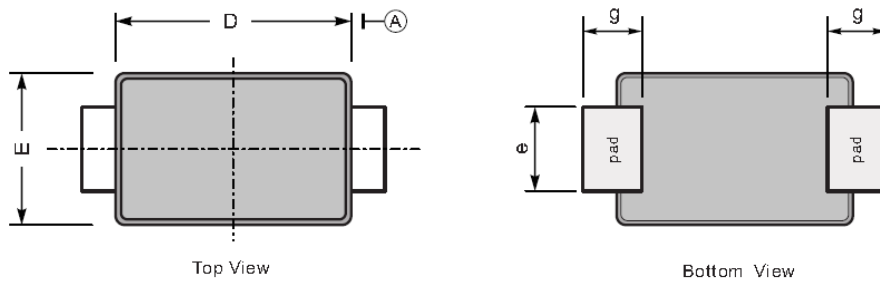
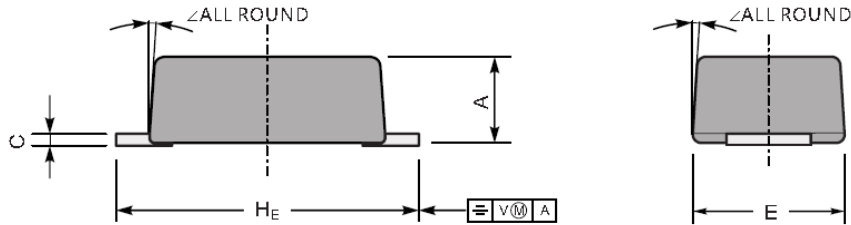


**Fig.6 Typical Transient Thermal Impedance**



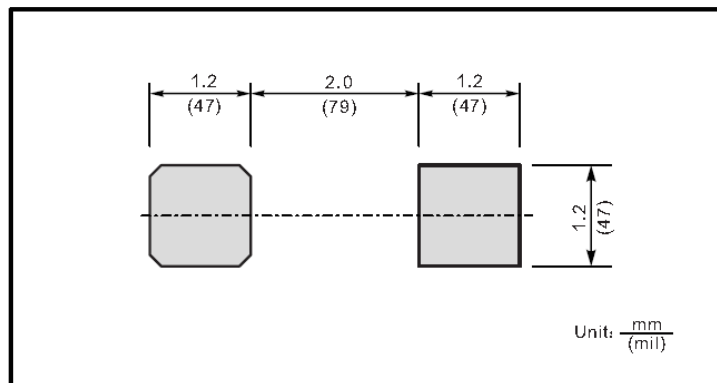
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads SOD-123FL



UNIT		A	C	D	E	e	g	H <sub>E</sub>	∠
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

### The recommended mounting pad size



单击下面可查看定价，库存，交付和生命周期等信息

[>>SHIKUES\(时科\)](#)