



### **ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER**

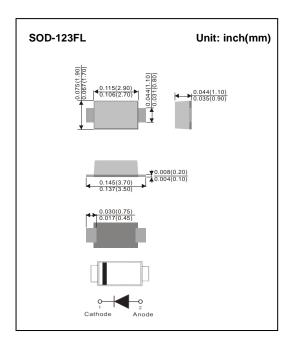
Voltage 60 V Current 2 A

#### **Features**

- Ideal for automated placement
- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Low thermal resistance
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

#### **Mechanical Data**

- Case: SOD-123FL Molded Plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Weight: 0.0006 ounces, 0.0173 grams



### Maximum Ratings And Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT		
Maximum repetitive peak reverse voltage		Vrrm	60	V	
Maximum rms voltage	VRMS	42	V		
Maximum dc blocking voltage	VR	60	V		
Maximum average forward rectified current	<b>I</b> F(AV)	2	Α		
Peak forward surge current: 8.3ms single half sine- wave superimposed on rated load		IFSM	50	Α	
Typical junction capacitance (V <sub>R</sub> =4V, f=1MHZ)		CJ	100	pF	
Torical theory of containing	(Note 2)	$R_{ heta JC}$	32	°C/W	
Typical thermal resistance	(Note 1)	$R_{\theta JA}$	200		
Operating junction temperature range		Тл	-55 to +150	°C	
Storage temperature range		Тѕтс	-55 to +150	°C	

Note: 1. Mounted on a FR4 PCB, single-sided copper, mini pad.

2. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area





## **Electrical Characteristics** (T<sub>A</sub>=25 °C unless otherwise noted)

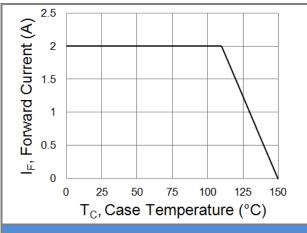
PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	$V_{BR}$	I <sub>R</sub> =0.5mA	T <sub>J</sub> =25°C	60	ı	-	V
Instantaneous forward voltage	V <sub>F</sub>	I <sub>F</sub> =0.5A	T <sub>J</sub> =25°C	-	0.35	-	V
		I <sub>F</sub> =2A		-	-	0.54	
		I <sub>F</sub> =0.5A	T <sub>J</sub> =125°C	-	0.28	-	V
		I <sub>F</sub> =2A		-	0.48	-	
Reverse current (Note 3)	I <sub>R</sub>	V <sub>R</sub> =48V	T <sub>J</sub> =25°C	-	6.6	-	μΑ
		V <sub>R</sub> =60V	T <sub>J</sub> =25°C	-	-	50	μА
			T <sub>J</sub> =125°C	-	3	-	mA

Note: 3. Short duration pulse test used to minimize self-heating effect.





### **TYPICAL CHARACTERISTIC CURVES**



**Fig.1 Forward Current Derating Curve** 

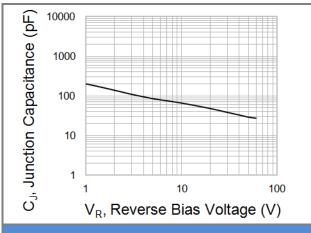


Fig.2 Typical Junction Capacitance

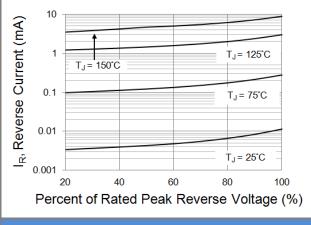


Fig.3 Typical Reverse Characteristics

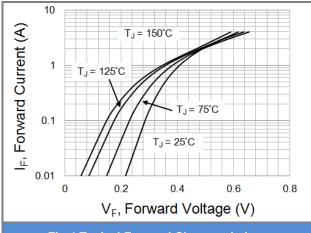
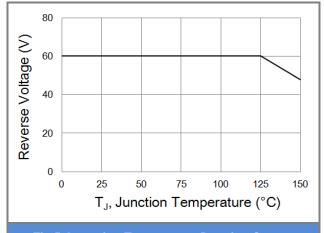


Fig.4 Typical Forward Characteristics



**Fig.5 Operating Temperature Derating Curve** 

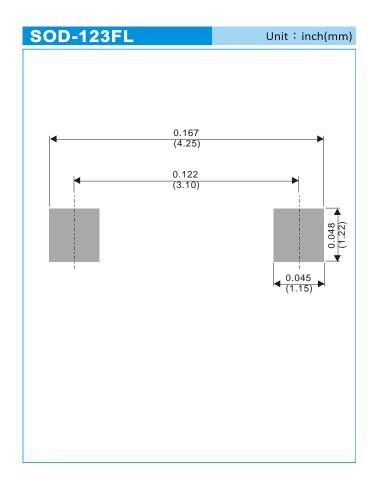




### PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing Type	Marking	Version
SBM260VAL_R1_00001	SOD-123FL	3K pcs / 7" reel	3VA	Halogen free
SBM260VAL_R2_00001	SOD-123FL	10K pcs / 13" reel	3VA	Halogen free

### **Mounting Pad Layout**







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