



# SBM260VAL

## ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

**Voltage**

**60 V**

**Current**

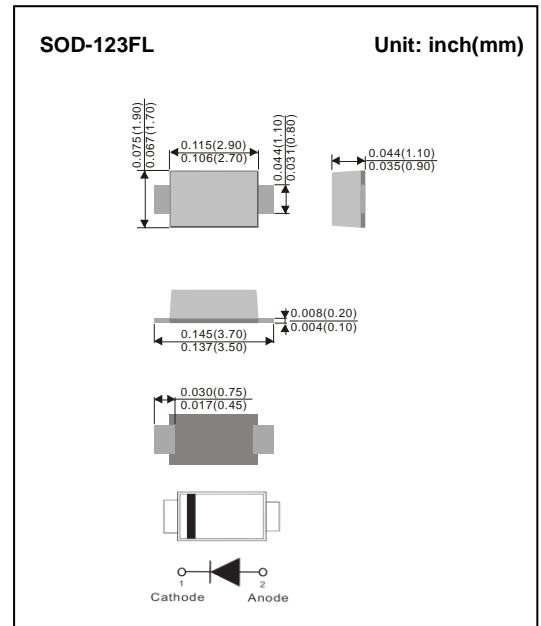
**2 A**

### 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 ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	60	V
Maximum rms voltage	$V_{RMS}$	42	V
Maximum dc blocking voltage	$V_R$	60	V
Maximum average forward rectified current	$I_{F(AV)}$	2	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	50	A
Typical junction capacitance ( $V_R=4\text{V}$ , $f=1\text{MHZ}$ )	$C_J$	100	pF
Typical thermal resistance	(Note 2) $R_{\theta JC}$	32	$^{\circ}\text{C/W}$
	(Note 1) $R_{\theta JA}$	200	
Operating junction temperature range	$T_J$	-55 to +150	$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150	$^{\circ}\text{C}$

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



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### Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	$V_{BR}$	$I_R=0.5\text{mA}$	$T_J=25^{\circ}\text{C}$	60	-	-	V
Instantaneous forward voltage	$V_F$	$I_F=0.5\text{A}$	$T_J=25^{\circ}\text{C}$	-	0.35	-	V
		$I_F=2\text{A}$		-	-	0.54	
		$I_F=0.5\text{A}$	$T_J=125^{\circ}\text{C}$	-	0.28	-	V
		$I_F=2\text{A}$		-	0.48	-	
Reverse current (Note 3)	$I_R$	$V_R=48\text{V}$	$T_J=25^{\circ}\text{C}$	-	6.6	-	$\mu\text{A}$
		$V_R=60\text{V}$	$T_J=25^{\circ}\text{C}$	-	-	50	$\mu\text{A}$
			$T_J=125^{\circ}\text{C}$	-	3	-	mA

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



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## TYPICAL CHARACTERISTIC CURVES

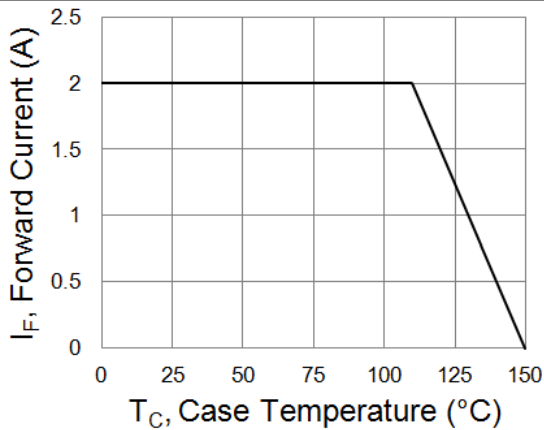


Fig.1 Forward Current Derating Curve

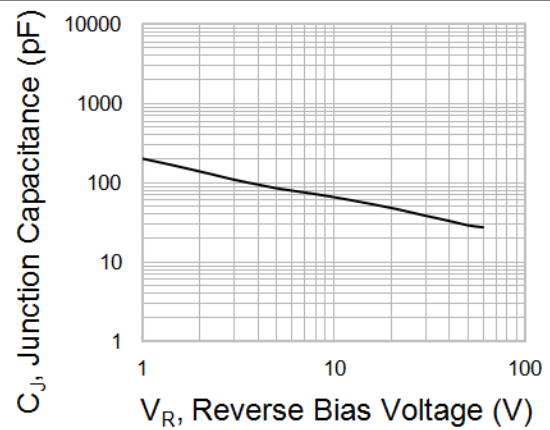


Fig.2 Typical Junction Capacitance

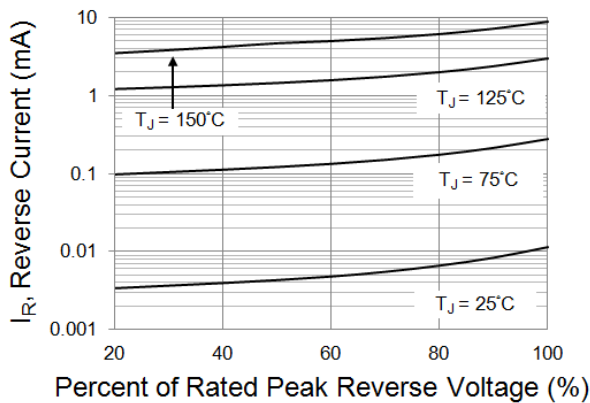


Fig.3 Typical Reverse Characteristics

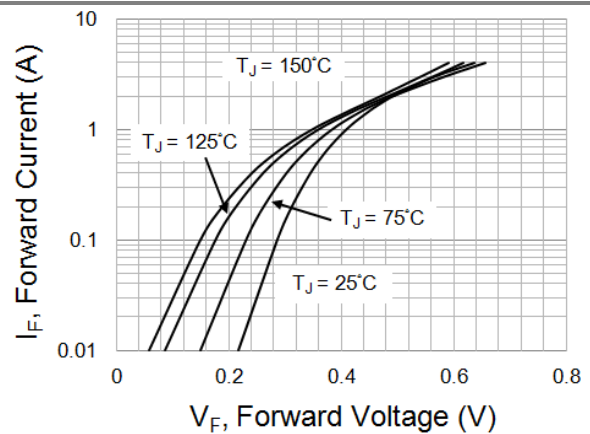


Fig.4 Typical Forward Characteristics

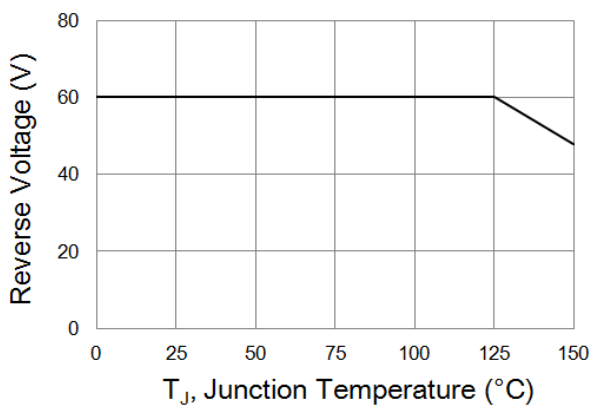


Fig.5 Operating Temperature Derating Curve



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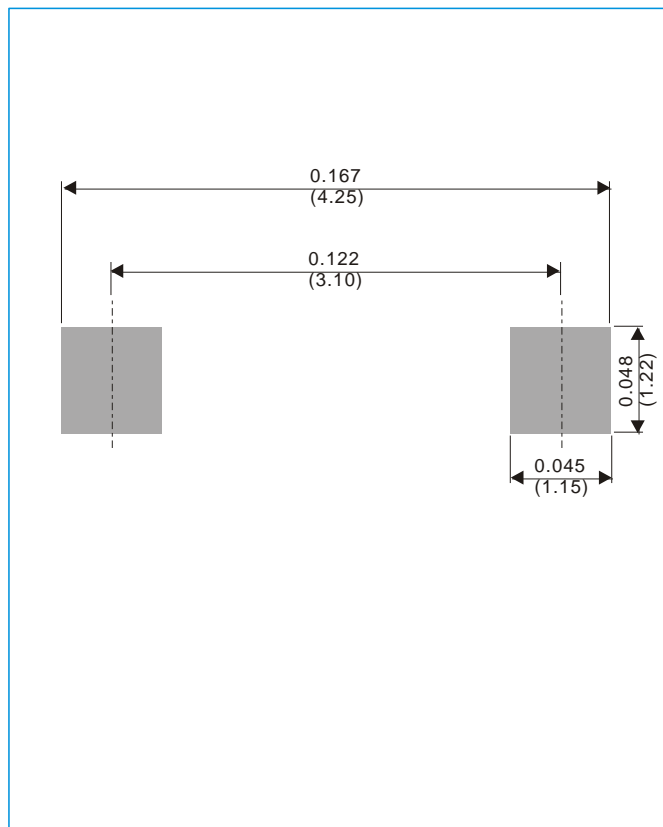
## PART NO PACKING CODE VERSION

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

**SOD-123FL**

Unit : inch(mm)





## **SBM260VAL**

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