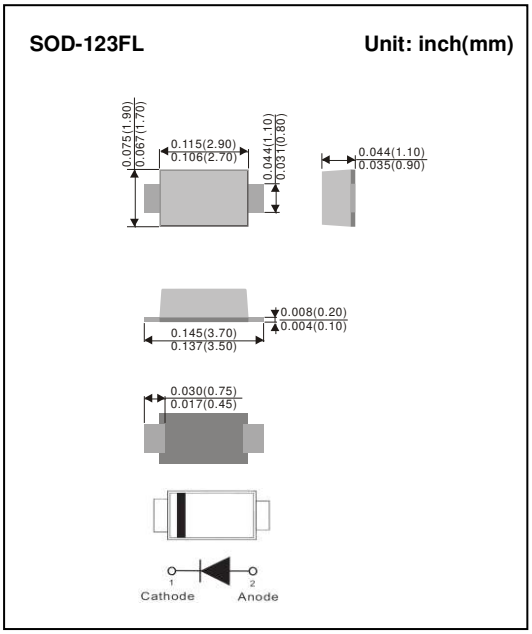
SBM260VAL

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°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=4V, f=1MHZ)		C_J	100	pF
Typical thermal resistance	(Note 2)	$R_{\theta JC}$	32	°C/W
	(Note 1)	$R_{\theta JA}$	200	
Operating junction temperature range		T_J	-55 to +150	°C
Storage temperature range		T_{STG}	-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^2 copper pad area

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Electrical Characteristics (T_A=25°C unless otherwise noted)

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

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

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TYPICAL CHARACTERISTIC CURVES

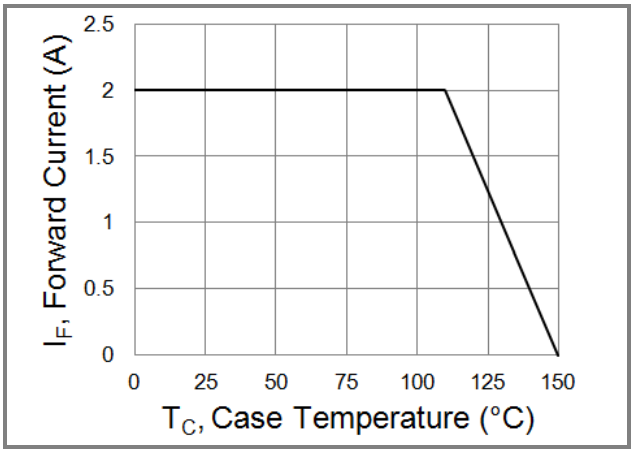

Fig.1 Forward Current Derating Curve

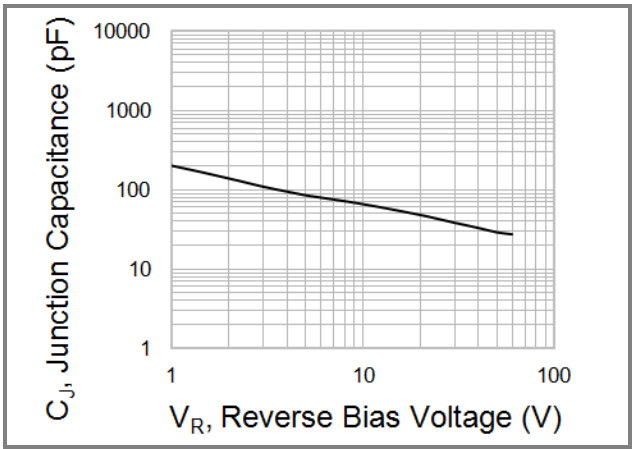

Fig.2 Typical Junction Capacitance

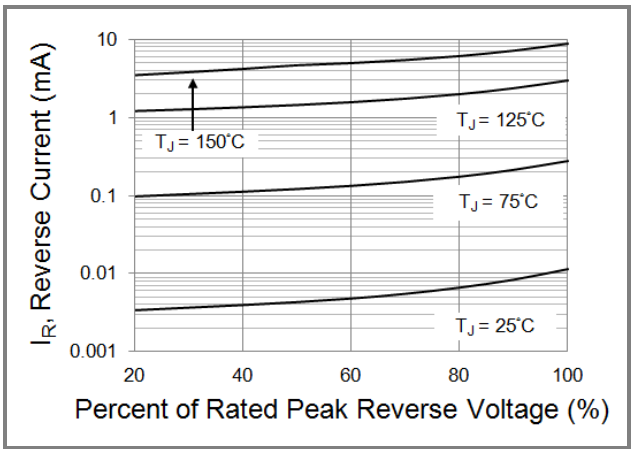

Fig.3 Typical Reverse Characteristics

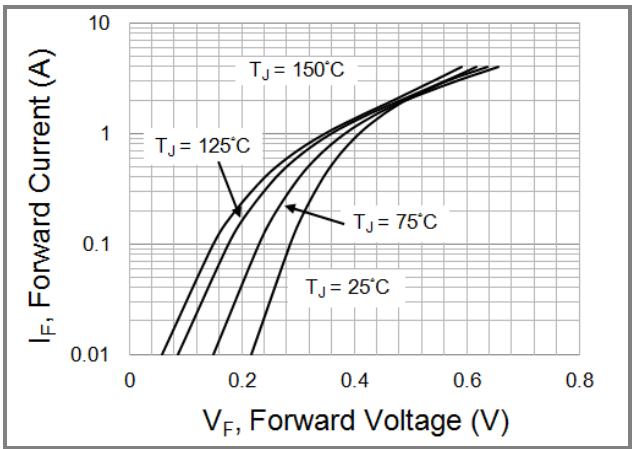

Fig.4 Typical Forward Characteristics

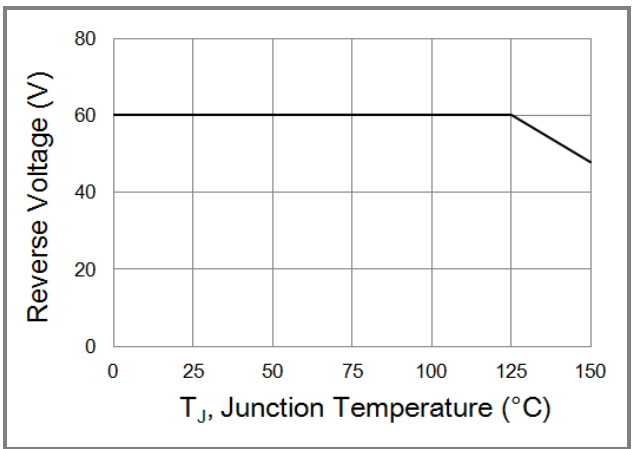

Fig.5 Operating Temperature Derating Curve

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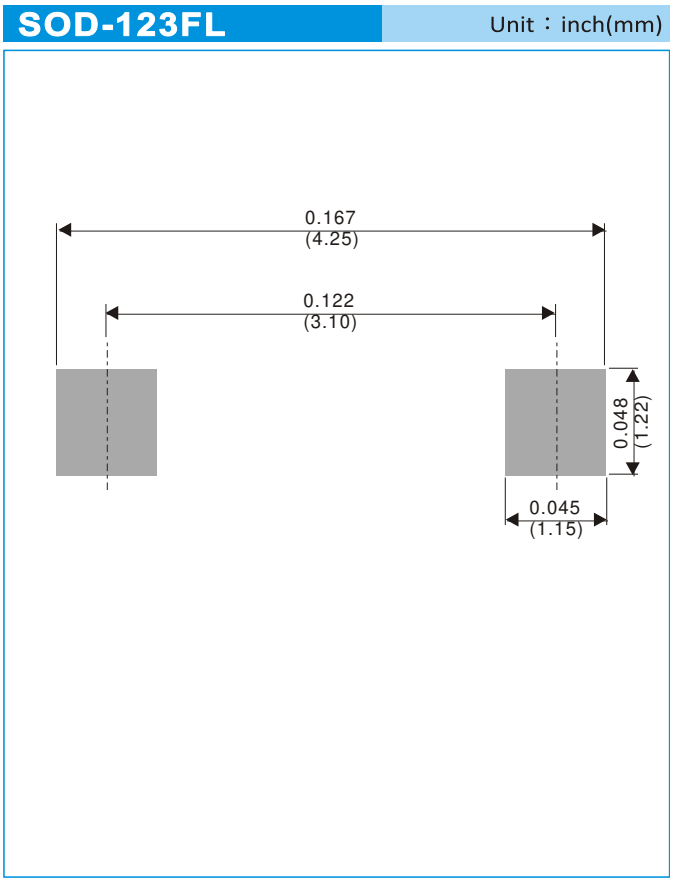
PART NO PACKING CODE VERSION

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



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