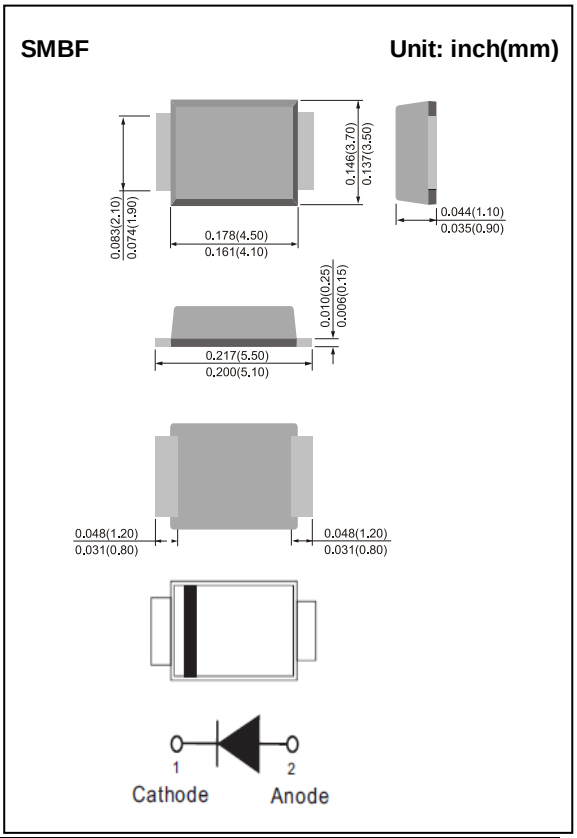
SBM360VBF

ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

Voltage	60 V	Current	3 A



Features

- Ideal for automated placement
- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Low thermal resistance
- Ultra thin profile package for space constrained utilization
- Easy pick and place package suitable for automated handling
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

Mechanical Data

- Case: SMBF package
- Terminals: solder plated, solderable per MIL-STD-750,Method 2026
- Weight: 0.002 ounces, 0.05 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		$I_{F(AV)}$	3	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	80	A
Typical junction capacitance (V_R=4V, f=1MHz)		C_J	200	pF
Typical thermal resistance	(Note 2)	$R_{\theta JA}$	135	°C/W
	(Note 1)	$R_{\theta JC}$	15	
	(Note 1)	$R_{\theta JL}$	20	
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, with 100cm² copper pad area.

2. Mounted on a FR4 PCB, single-sided copper, mini pad.

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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=1A	T_J=25°C	-	0.34	-	V
		I_F=3A		-	-	0.5	
		I_F=1A	T_J=125°C	-	0.27	-	V
		I_F=3A		-	0.43	-	
Reverse current	I_R	V_R=48V	T_J=25°C	-	35	-	μA
		V_R=60V	T_J=25°C	-	-	220	μA
			T_J=125°C	-	10	-	mA

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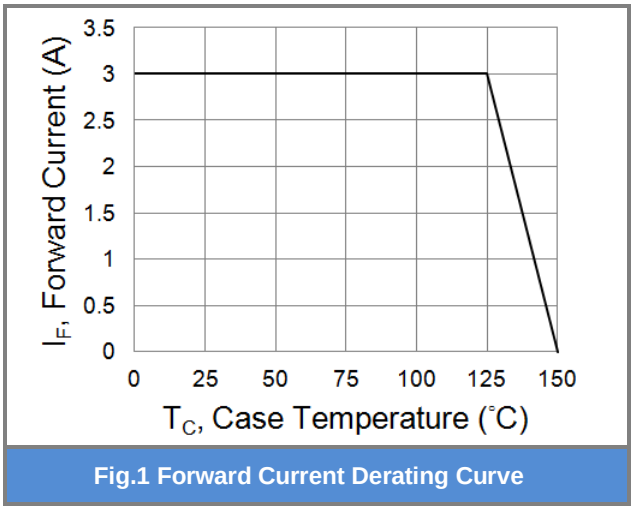

Fig.1 Forward Current Derating Curve

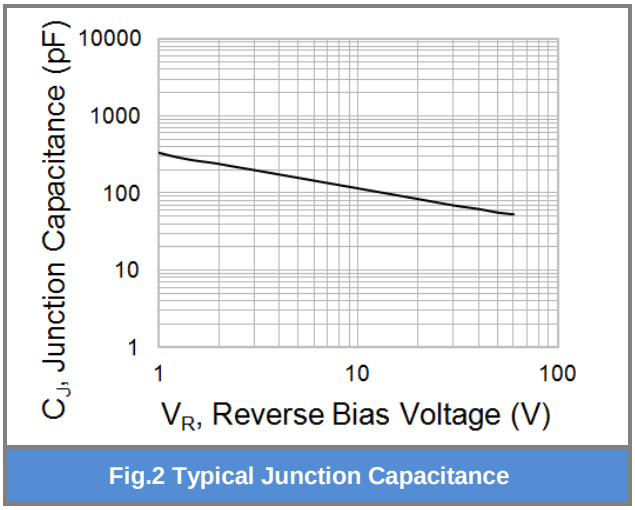

Fig.2 Typical Junction Capacitance

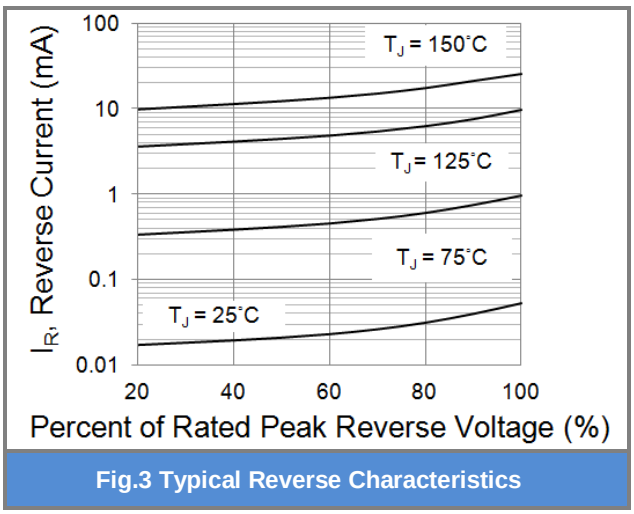

Fig.3 Typical Reverse Characteristics

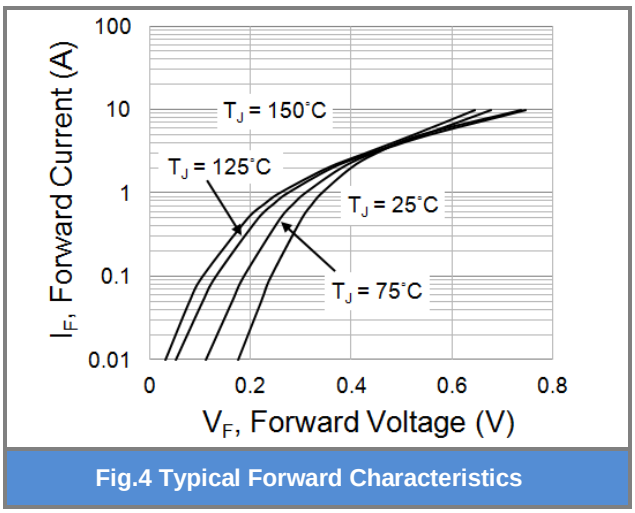

Fig.4 Typical Forward Characteristics

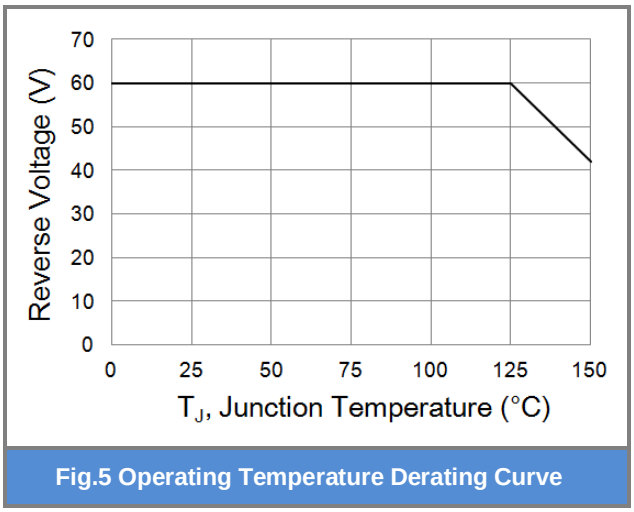

Fig.5 Operating Temperature Derating Curve

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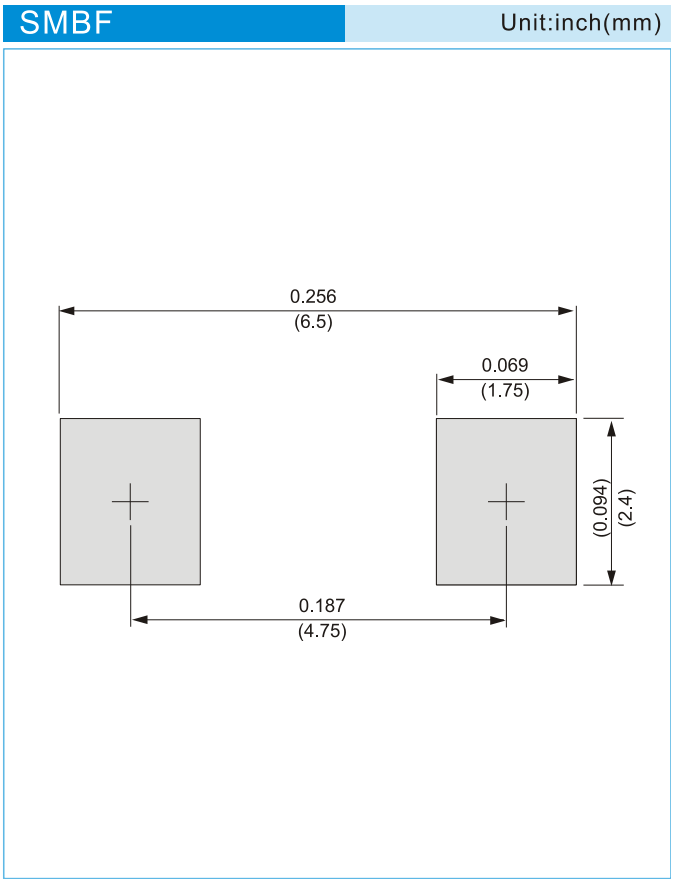
Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SBM360VBF_R1_00001	SMBF	1.5K pcs / 7” reel	SBM360VBF	Halogen free
SBM360VBF_R2_00001	SMBF	5K pcs / 13” reel	SBM360VBF	Halogen free

Mounting Pad Layout



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