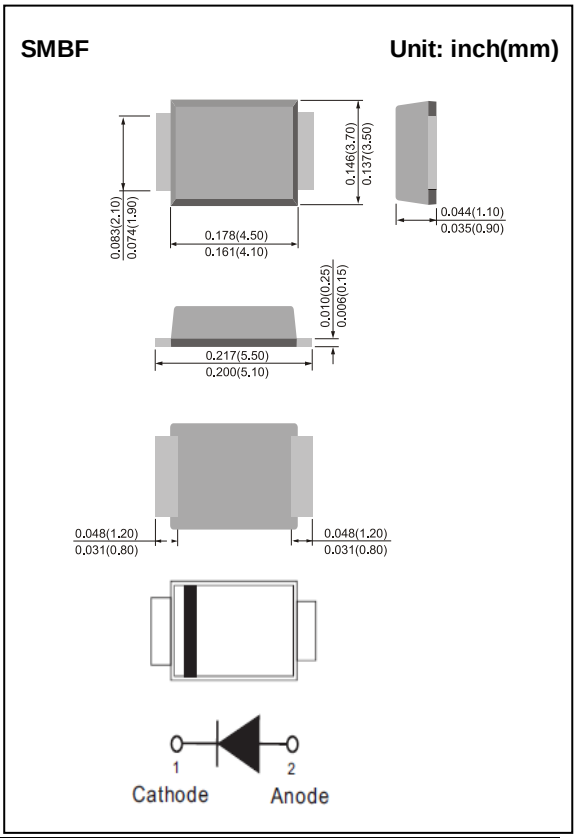
SBM360VBF

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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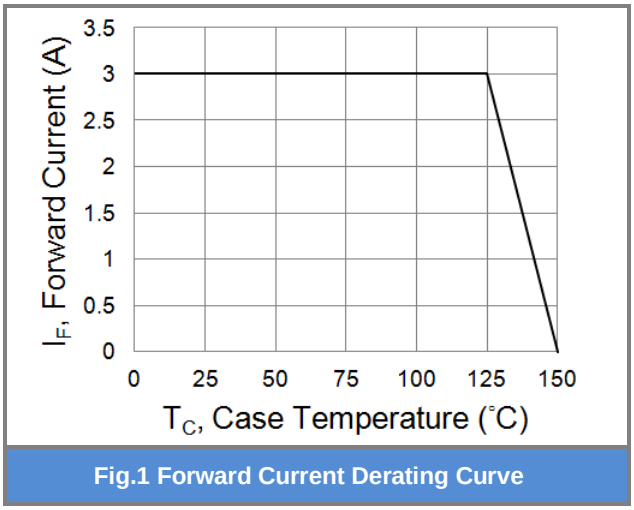


Fig.1 Forward Current Derating Curve

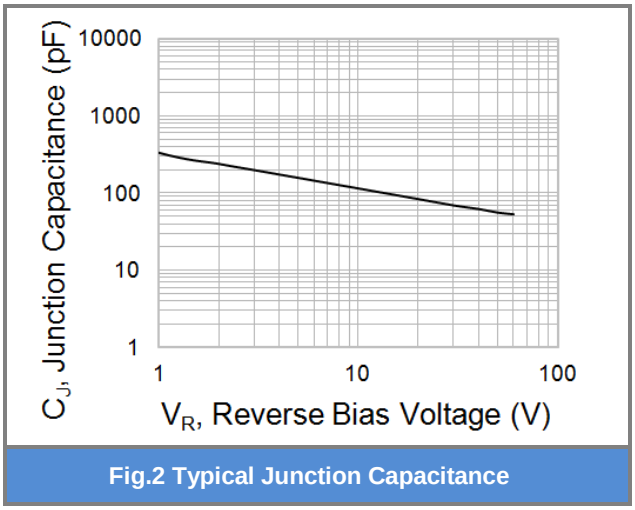


Fig.2 Typical Junction Capacitance

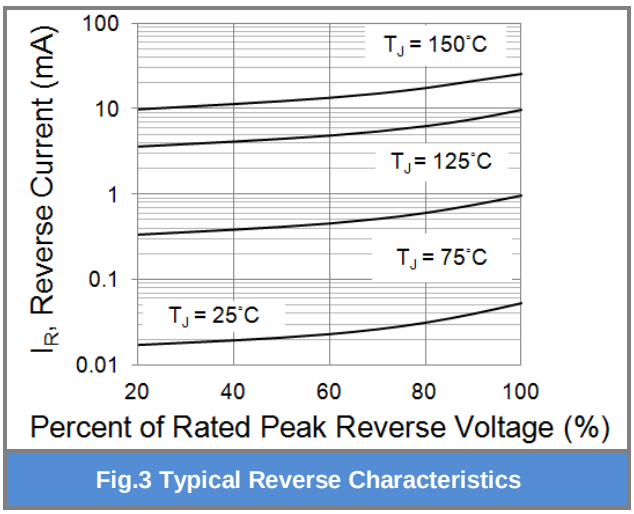


Fig.3 Typical Reverse Characteristics

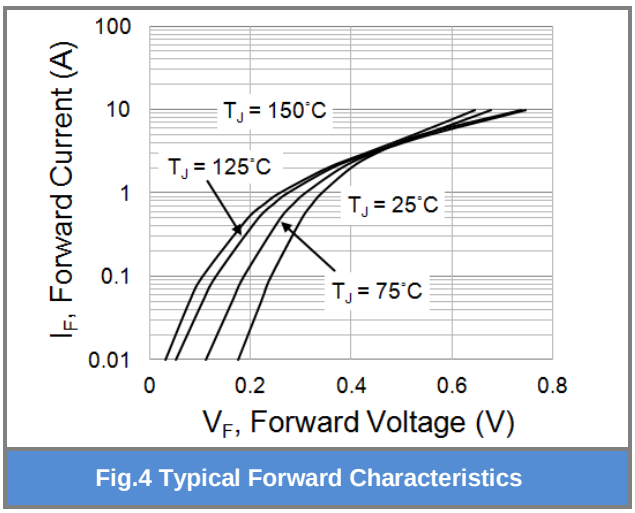


Fig.4 Typical Forward Characteristics

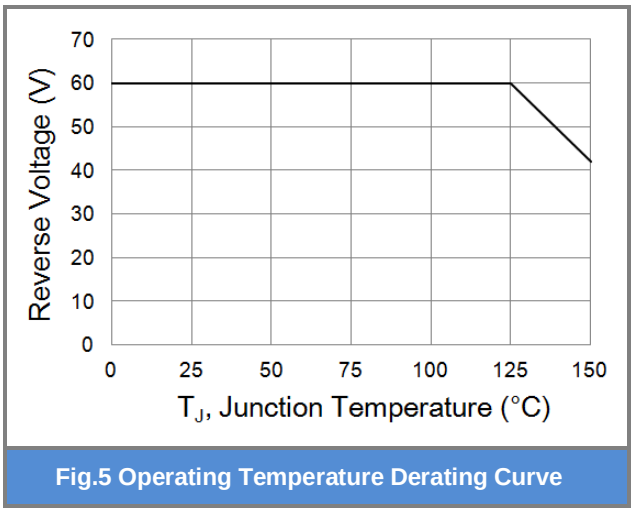


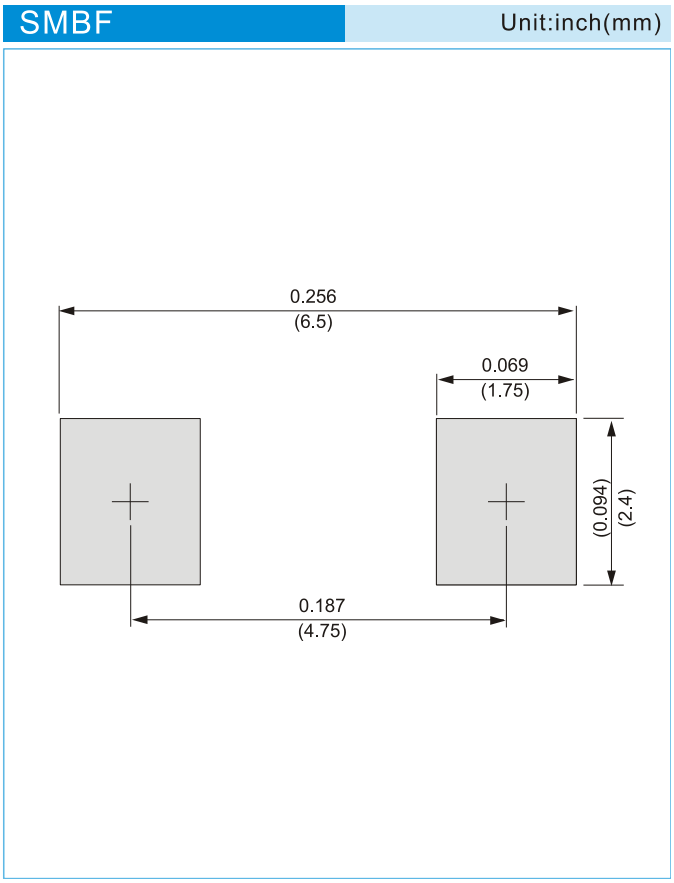
Fig.5 Operating Temperature Derating Curve

SBM360VBF

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



SBM360VBF

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