Elektronische Bauelemente

SM520BM-C~SM5200BM-C

Voltage 20~200V

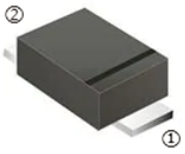
5.0 Amp Surface Mount Schottky Barrier Rectifiers

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Surface mounted applications
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

SMBM

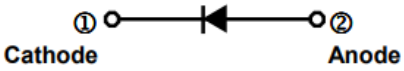


MECHANICAL DATA

- Case : SMBM
- Terminals: Solderable per MIL-STD-750, Method 2026

MARKING

Part Number	Marking Code	Part Number	Marking Code
SM520BM-C	S54B	SM5100BM-C	S510B
SM540BM-C	S54B	SM5150BM-C	S515B
SM560BM-C	S56B	SM5200BM-C	S520B



PACKAGE INFORMATION

Package	MPQ	Leader Size
SMBM	5K	13 inch

ORDER INFORMATION

Part Number	Type
SM520BM-C~ SM5200BM-C	Lead (Pb)-free and Halogen-free

ABSOLUTE MAXIMUM RATINGS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter		Symbol	Part Number						Unit
			SM520 BM-C	SM540 BM-C	SM560 BM-C	SM5100 BM-C	SM5150 BM-C	SM5200 BM-C	
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	20	40	60	100	150	200	V
Maximum RMS Voltage		V_{RMS}	14	28	42	70	105	140	V
Maximum DC Blocking Voltage		V_{DC}	20	40	60	100	150	200	V
Maximum Average Forward Rectified Current		I_F	5						A
Peak Forward Surge Current @8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	150						A
Maximum Instantaneous Forward Voltage @I_F=5A		V_F	0.55		0.7	0.85			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_J=25°C	I_R	1						mA
	T_J=100°C		50						
Typical Junction Capacitance [1]		C_J	800		500				pF
Typical Thermal Resistance, Junction-Ambient [2]		$R_{\theta JA}$	45						°C/W
Junction and Storage Temperature		T_J, T_{STG}	150, -55~150						°C

Notes:

1. Measured at 1MHz and applied reverse voltage of 4V D.C.
2. P.C.B. mounted with 0.5 x 0.5'' (12.7 x 12.7mm) copper pad areas.

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RATINGS AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

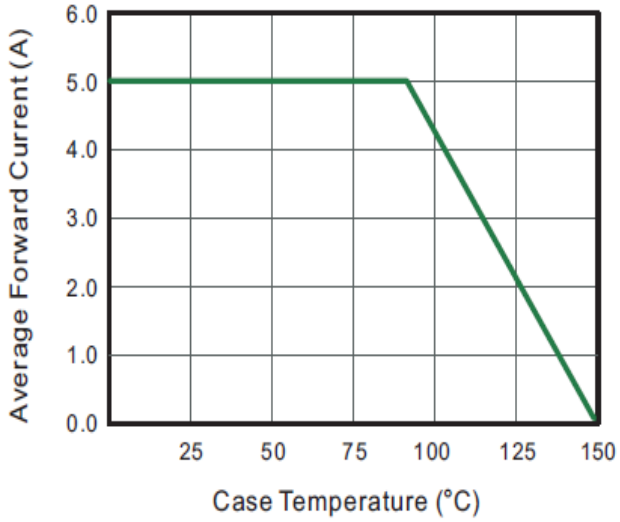


Fig.2 Typical Reverse Characteristics

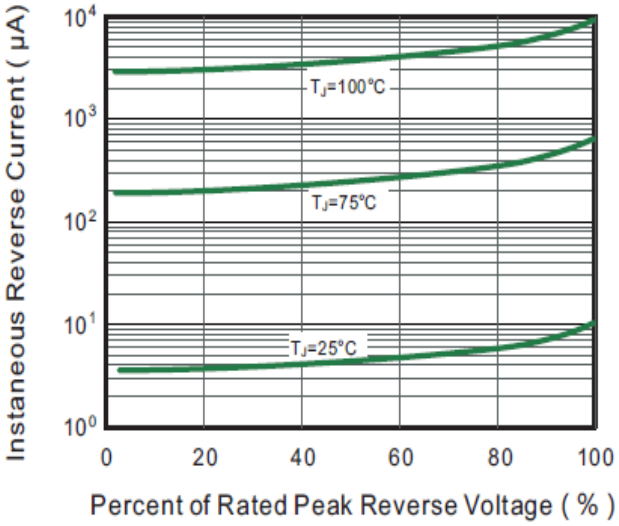


Fig.3 Typical Forward Characteristic

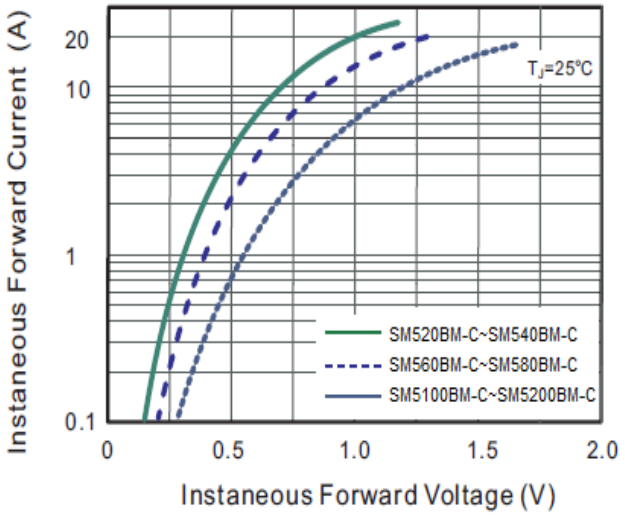


Fig.4 Typical Junction Capacitance

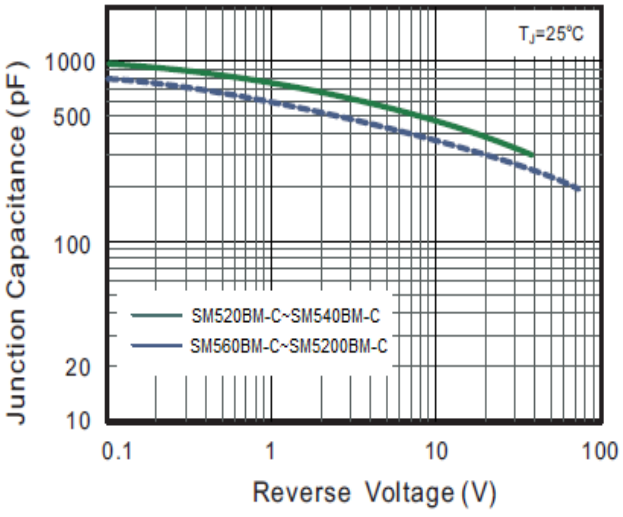


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

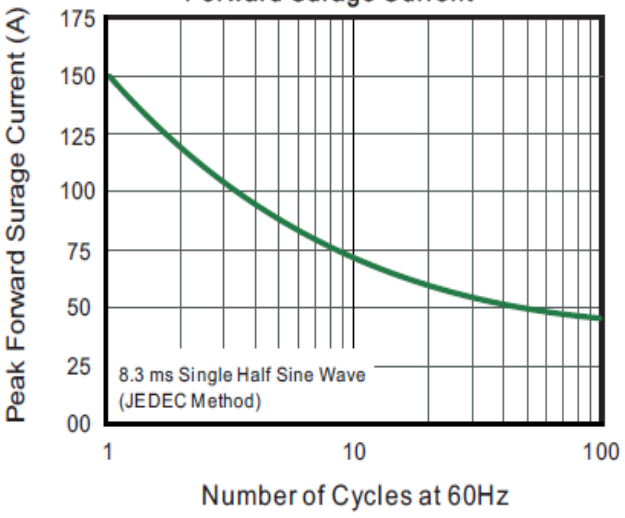
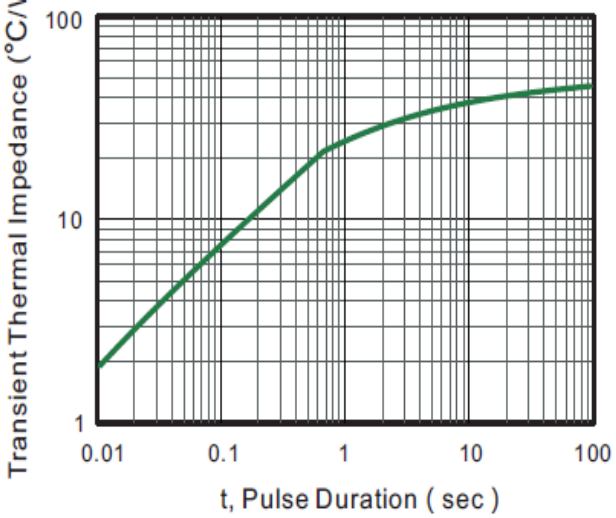


Fig.6- Typical Transient Thermal Impedance



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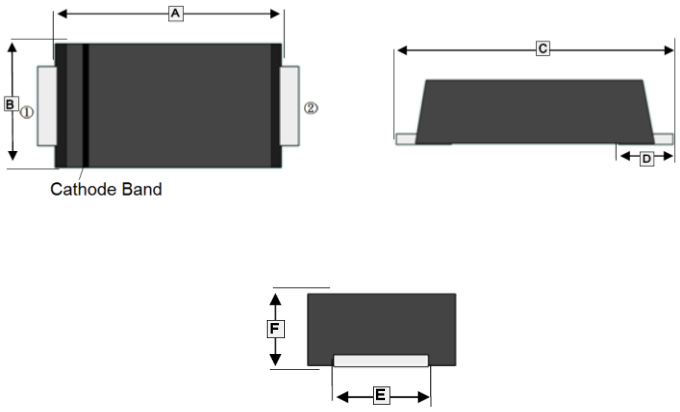
PACKAGE OUTLINE DIMENSIONS

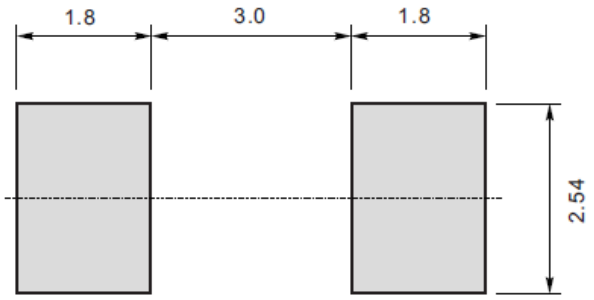
SMBM



REF.	Millimeter	
	Min.	Max.
A	4.20	4.70
B	3.40	3.80
C	5.10	5.50
D	1.00 REF.	
E	1.80	2.20
F	1.10	1.45
G	0.15	0.26

MOUNTING PAD LAYOUT

SMBM



*Dimensions in millimeters