Elektronische Bauelemente

SM5100BCR-C

Voltage 100V

5.0Amp Schottky Barrier Rectifiers

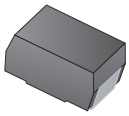
RoHS Compliant Product

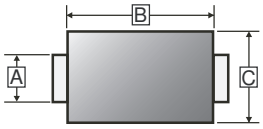
A suffix of "-C" specifies halogen & lead-free

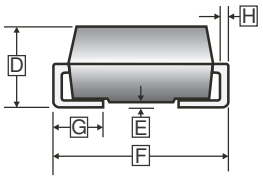
FEATURES

- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Higher Temp Soldering: 250℃ for 10 Seconds at Term inals
- Low Revise Current
- Qualified to AEC-Q101 Standards for High Reliability

SMB







REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.85	2.20	E	-	0.203
B	4.00	4.75	F	5.08	5.59
C	3.25	3.94	G	0.75	1.52
D	1.99	2.61	H	0.15	0.31

MECHANICAL DATA

- Case: Molded Plastic
- Epoxy: UL 94V-0 Rate Flame Retardant
- Lead: Axial Leads, Solderable per MIL-STD-202 method 208 Guaranteed
- Polarity: Color Band Denotes Cathode End
- Mounting Position: Any

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMB	3K	13 inch

ORDER INFORMATION

Part Number	Type
SM5100BCR-C	Lead (Pb)-free and Halogen-free

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter		Symbol	Ratings	Unit
Peak Repetitive Peak Reverse Voltage		V_{RRM}	100	V
Working Peak Reverse Voltage		V_{RWM}	100	
Maximum DC Blocking Voltage		V_R	100	
Average Forward Current	T_J=25℃	I_F	5	A
Peak Forward Current @8.3ms Half Sine		I_{FSM}	125	A
Maximum Instantaneous Forward Voltage @I_F=5A	T_A=25℃	V_F	0.82	V
	T_A=75℃		0.73	
	T_A=125℃		0.65	
Maximum DC Reverse Current [2] @Rated DC Blocking Voltage	T_J=25℃	I_R	100	μA
	T_J=100℃		800	
Typical Junction Capacitance [1]		C_J	350	pF
Thermal Resistance Junction-Ambient		$R_{\theta JA}$	60	℃/W
Thermal Resistance Junction-Case		$R_{\theta JC}$	20	
Device Power Dissipation		P_D	2	W
Voltage Rate of Chance (Rated V_R)		dv/dt	10000	V/μs
Operating Temperature Range		T_J	-50~150	℃
Storage Temperature Range		T_{STG}	-65~150	

Notes:

1. Measured at 1MHz and applied reverse voltage of 5V D.C.
2. Pulse Test: Pulse Width≦300μs, Duty Cycle≦2%.

Elektronische Bauelemente

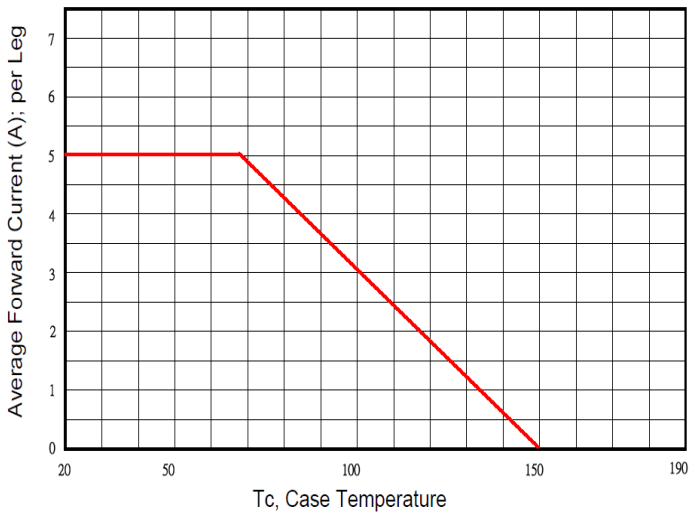
SM5100BCR-C

Voltage 100V

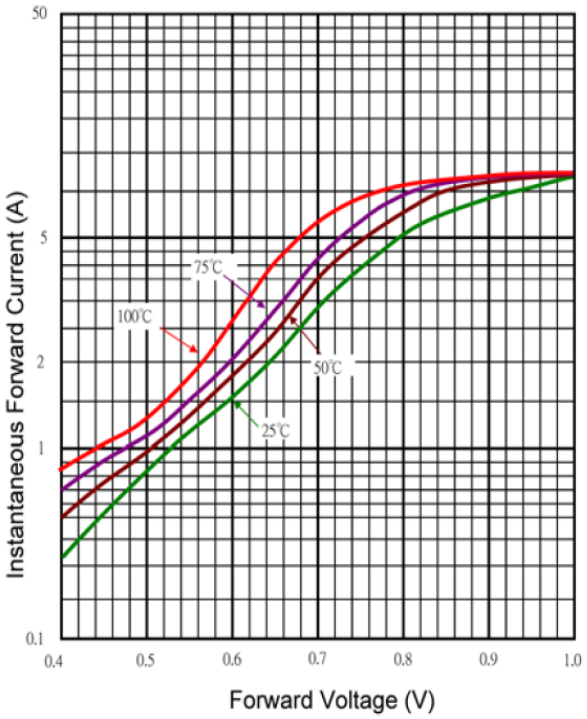
5.0Amp Schottky Barrier Rectifiers

RATINGS AND CHARACTERISTIC CURVES

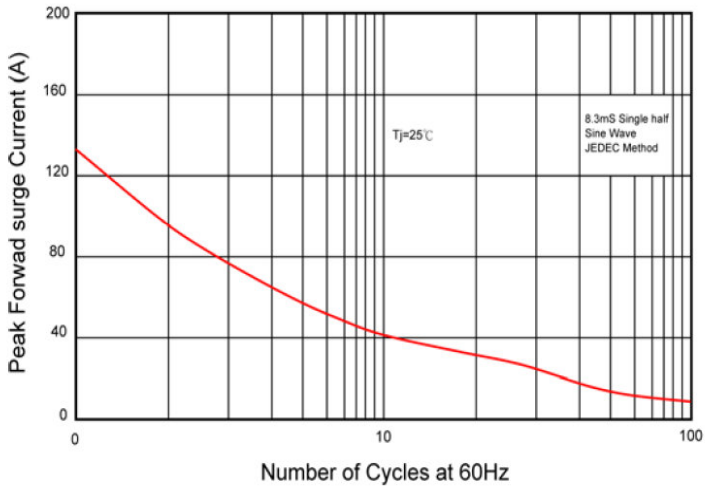
Typical Forward Current Derating Curve



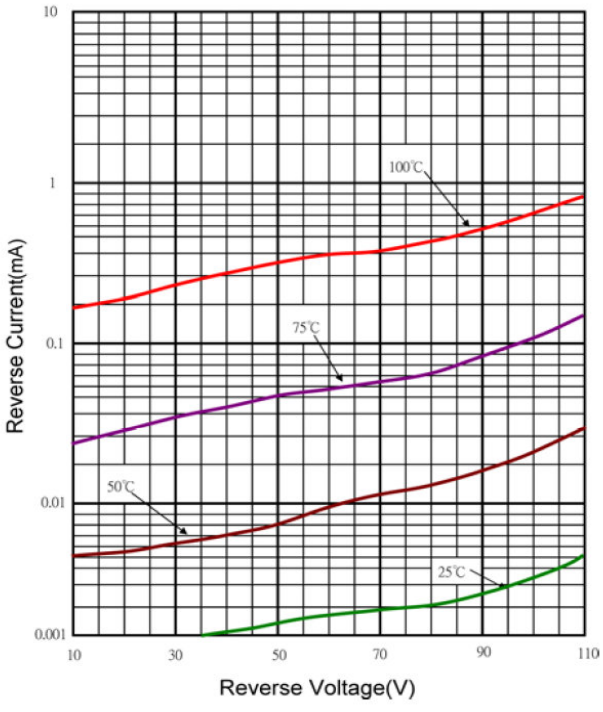
Typical Forward Characteristic



Maximum Non- Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance