Elektronische Bauelemente

SM5100C

VOLTAGE 100V

5A Schottky Barrier Rectifiers

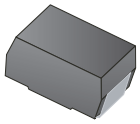
RoHS Compliant Product

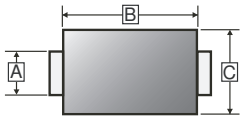
A suffix of “-C” specifies halogen & lead-free

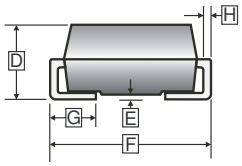
FEATURES

- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Low Revise Current
- Higher Temp Soldering: 250℃ for 10 Seconds at Terminals

SMC







REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.750	3.270	E	-	0.203
B	6.520	7.110	F	7.640	8.130
C	5.50	6.220	G	0.750	1.520
D	1.980	2.620	H	0.23 TYP	

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
SMC	3K	13 inch

ORDER INFORMATION

Part Number	Type
SM5100C	Lead (Pb)-free
SM5100C-C	Lead (Pb)-free and Halogen-free

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25℃ ambient temperature unless otherwise sp ecified. Single phase half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Parameter		Symbol	Ratings	Unit
Peak Repetitive Peak reverse voltage Working Peak Reverse Voltage Maximum DC Blocking Voltage		V_{RRM} V_{RWM} V_R	100	V
Average Forward Current @T_J=25℃		$I_{F(AV)}$	5	A
Peak Forward Current @ 8.3 ms Half Sine		I_{FSM}	125	A
Maximum Instantaneous Forward Voltage @I_{FM}=5A	T_A=25℃	V_F	0.82	V
	T_A=75℃		0.73	
	T_A=125℃		0.65	
Maximum DC Reverse Current [1] @ Rated DC Blocking Voltage	T_J=25℃	I_R	100	μA
	T_J=100℃		800	
Typical Junction Capacitance [2]		C_J	350	pF
Typical Thermal Resistance Junction to Case		$R_{\theta JC}$	25	℃/W
Typical Thermal Resistance Junction to Lead		$R_{\theta JL}$	20	℃/W
Voltage Rate of Chance (Rated V_R)		dv/dt	1000	V/μs
Operating Temperature Range		T_J	-50~150	℃
Storage temperature		T_{STG}	-65~150	℃

Notes:

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

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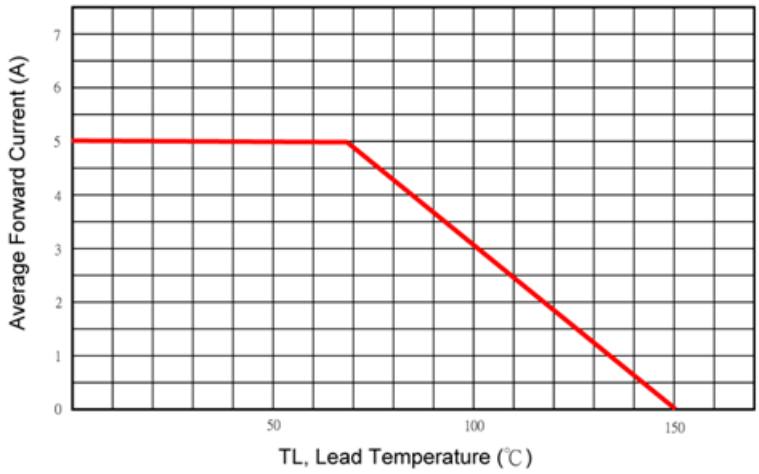
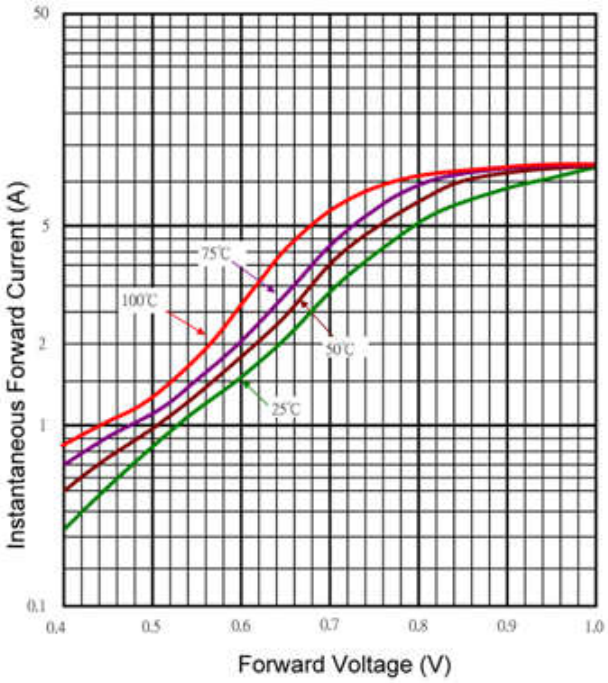
RATINGS AND CHARACTERISTIC CURVES

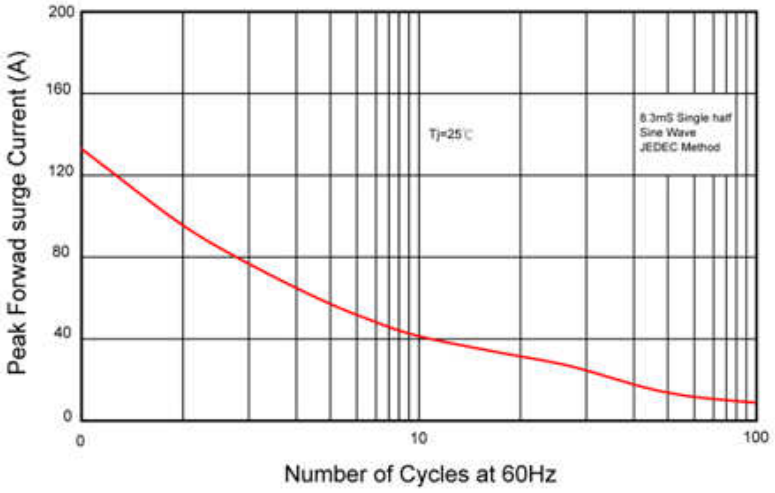
Typical Forward Current Derating Curve



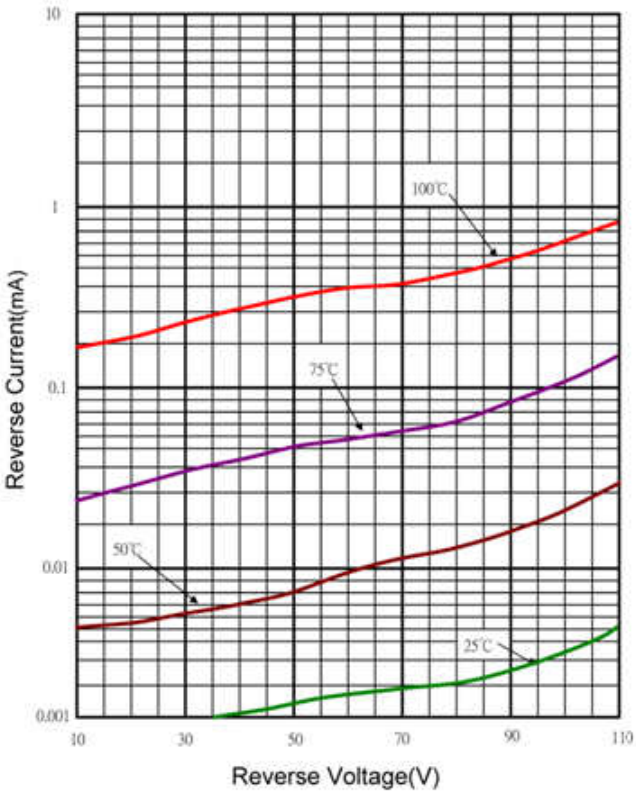
Typical Forward Characteristic



Maximum Non- Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance