Elektronische Bauelemente

SM5150B-C

Voltage 150V

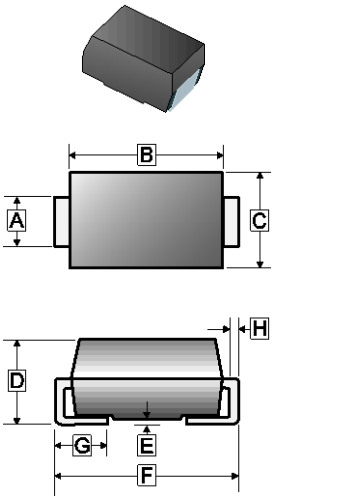
5.0 Amp Low I_R Schottky Barrier Rectifiers

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°C for 10 Seconds at Terminals
- Low Reverse Current

SMB



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.85	2.20	E	-	0.25
B	4.00	4.85	F	5.05	5.59
C	3.25	3.94	G	0.75	1.55
D	1.90	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
SM5150B-C	Lead (Pb)-free and Halogen-free

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(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	Ratings	Unit
Peak Repetitive Peak Reverse Voltage	V_{RRM}	150	V
Working Peak Reverse Voltage	V_{RWM}	150	V
Maximum DC Blocking Voltage	V_R	150	V
Average Forward Current	$I_{F(AV)}$	5	A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150	A
Voltage Rate of Chance (Rated V_R)	dv/dt	10000	V/μs
Thermal Resistance Junction-Case	$R_{\theta JC}$	20	°C/W
Operating & Storage Temperature	T_J ,T_{STG}	-50~150, -65~175	°C

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Instantaneous Forward Voltage	V_F	-	0.83	V	I_F=5A,T_A=25°C
		0.73	-		I_F=5A,T_A=75°C
		0.65	-		I_F=5A,T_A=125°C
Maximum DC Reverse Current at Rated DC Blocking Voltage [2]	I_R	-	50	uA	T_J=25°C
		10	800		T_J=100°C
Typical Junction Capacitance [1]	C_J	240	-	pF	

Notes:
1. Measured at 1MHz and applied reverse voltage of 0V D.C.
2. Pulse Test: Pulse Width≦300μs, Duty Cycle≦2%.

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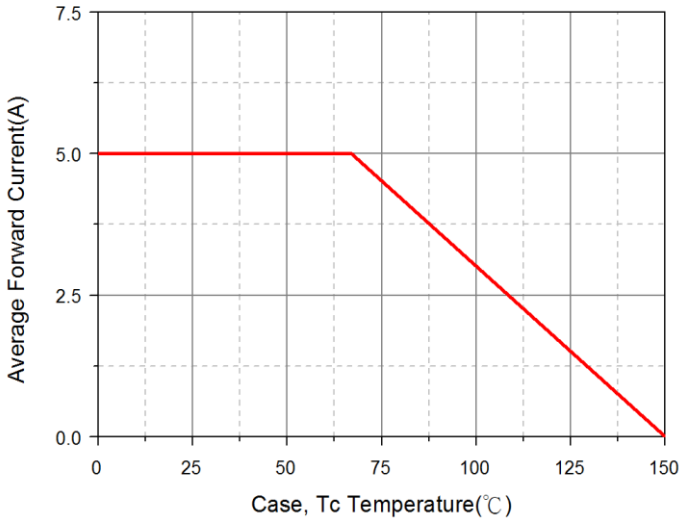
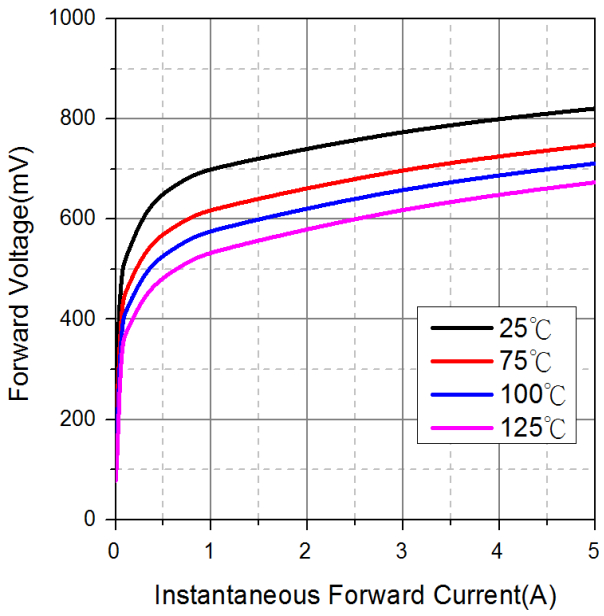
RATINGS AND CHARACTERISTIC CURVES

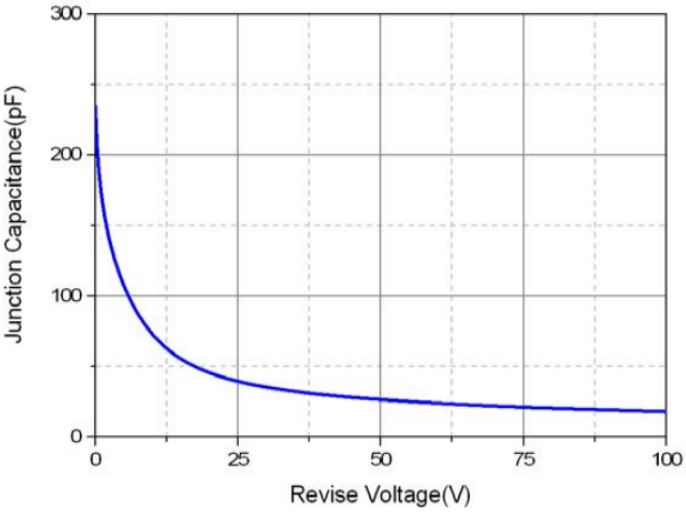
Typical Forward Current Derating Curve



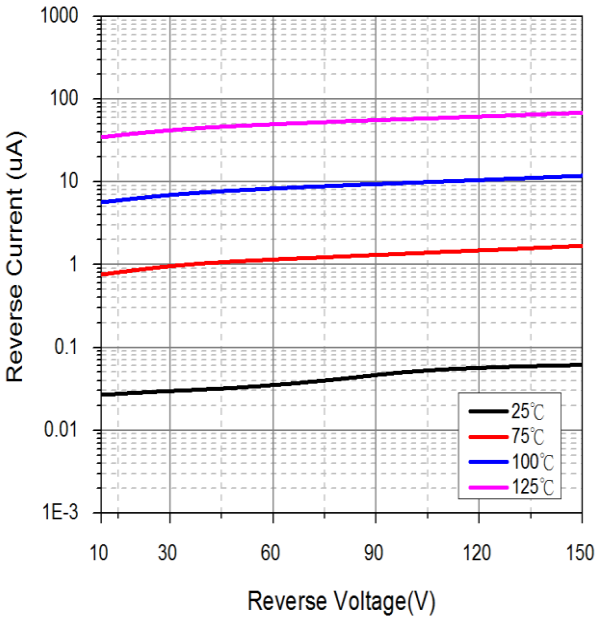
Typical Forward Characteristic



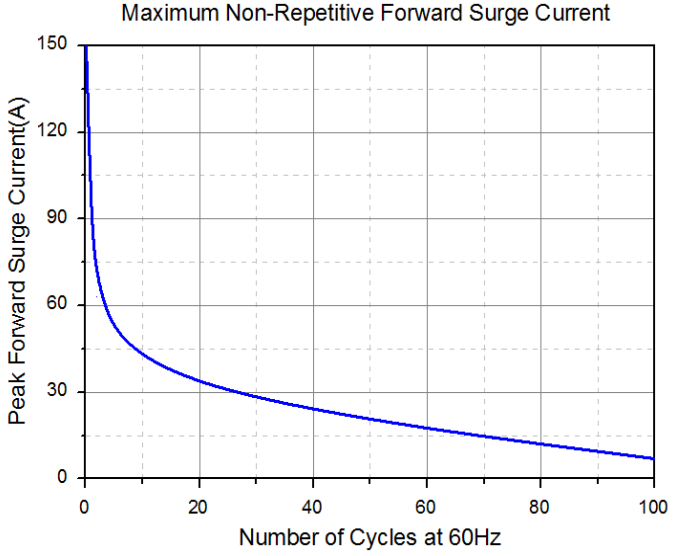
Typical Junction Capacitance



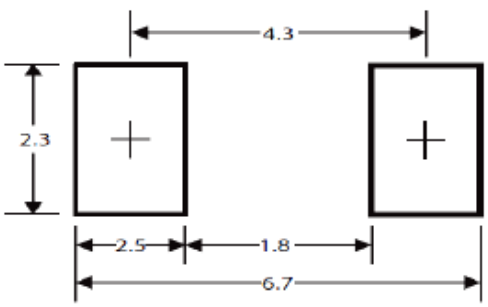
Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current



Mounting Pad Layout



*Dimensions in millimeters