

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

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

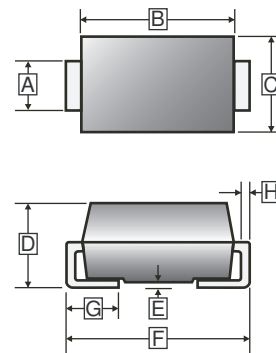
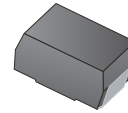
PACKAGE INFORMATION

Package	MPQ	Leader Size
SMB	3K	13' inch

ORDER INFORMATION

Part Number	Type
SM5200B	Lead (Pb)-free
SM5200B-C	Lead (Pb)-free and Halogen-free

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

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%.)

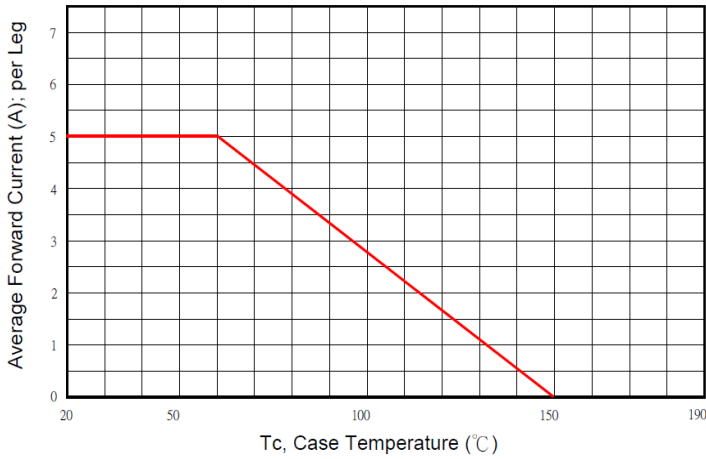
Parameter	Symbol	Rating	Unit
Peak Repetitive Peak reverse voltage	V _{RRM}	200	V
Working Peak Reverse Voltage	V _{RWM}	200	V
Maximum DC Blocking Voltage	V _R	200	V
Average Forward Current @T _J =25°C	I _{F(AV)}	5	A
Peak Forward Current @ 8.3 ms Half Sine	I _{FSM}	150	A
Maximum Instantaneous Forward Voltage	V _F	I _{FM} =5.0 A, T _A =25°C	0.88
		I _{FM} =5.0 A, T _A =75°C	0.78
		I _{FM} =5.0 A, T _A =125°C	0.72
Maximum DC Reverse Current ⁴	I _R	T _J =25°C	40
		T _J =100°C	700
Typical Junction Capacitance ¹	C _J	250	pF
Typical Thermal Resistance ²	R _{θJA}	65	°C/W
Typical Thermal Resistance ³	R _{θJC}	20	°C/W
Voltage Rate of Change (Rated V _R)	dv/dt	10000	V / μs
Operating Temperature Range	T _J	-50~150	°C
Storage temperature	T _{STG}	-65~150	°C

Notes:

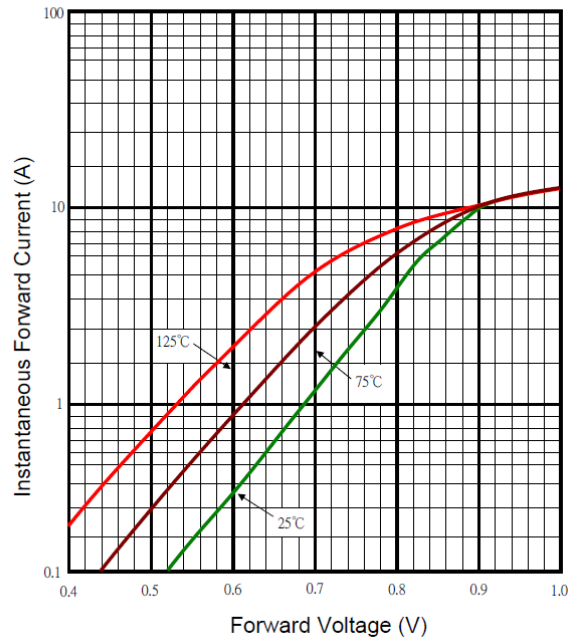
1. Measured at 1MHz and applied reverse voltage of 5.0 V D.C.
2. Thermal Resistance Junction to Ambient.
3. Thermal Resistance Junction to Case.
4. Pulse Test: Pulse Width = 300 μs, Duty Cycle ≤ 2.0%.

RATINGS AND CHARACTERISTIC CURVES

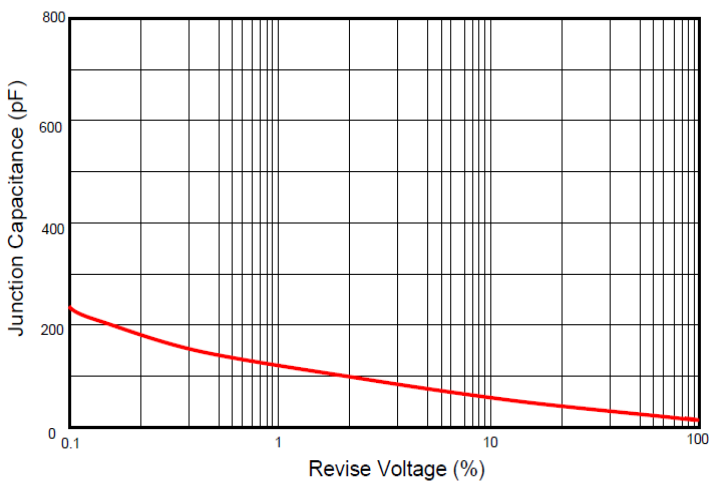
Typical Forward Current Derating Curve



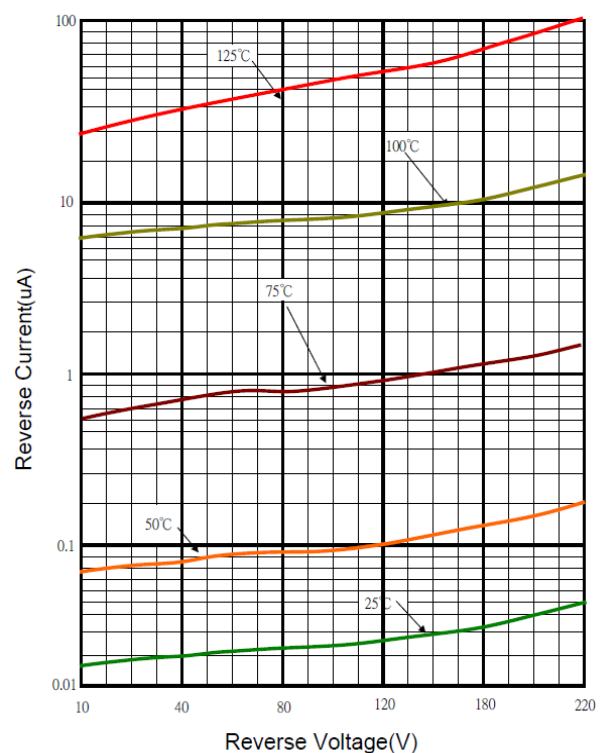
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current

