

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

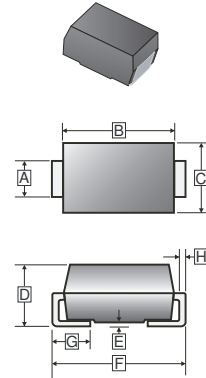
FEATURES

- 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

SMC



PACKAGE INFORMATION

Package	MPQ	Leader Size
SMC	3K	13' inch

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.75	3.15	E	-	0.203
B	6.60	7.11	F	7.75	8.13
C	5.59	6.22	G	0.76	1.27
D	2.00	2.62	H	0.15	0.31

ORDER INFORMATION

Part Number	Type
SM5150C	Lead (Pb)-free
SM5150C-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%.)

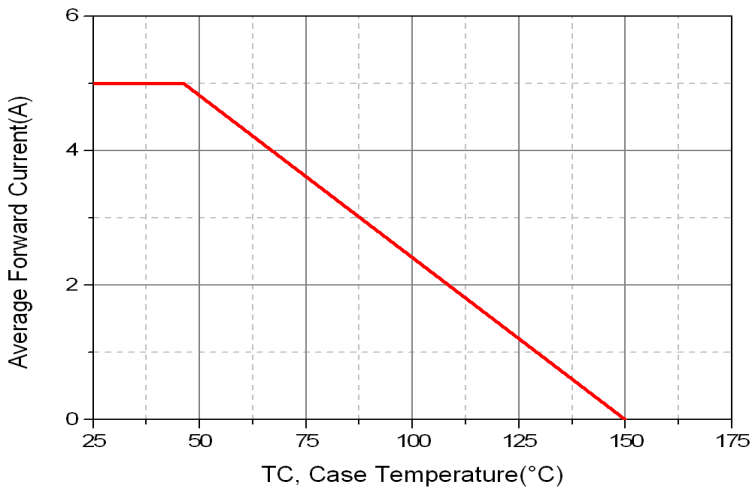
Parameter	Symbol	Rating	Unit
Peak Repetitive Peak reverse voltage	V _{RRM}	150	V
Working Peak Reverse Voltage	V _{RWM}	150	V
Maximum DC Blocking Voltage	V _{DC}	150	V
Average Forward Current	I _{F(AV)}	5	A
Peak Forward Current @ 8.3 ms Half Sine	I _{FSM}	150	A
Maximum Instantaneous Forward Voltage @ 5A	V _F	T _J =25°C	0.83
		T _J =125°C	0.65
Maximum DC Reverse Current At Rated DC Blocking Voltage ⁴	I _R	T _J =25°C	50
		T _J =100°C	800
Typical Junction Capacitance ¹	C _J	350	pF
Voltage Rate of Change (Rated VR)	dv/dt	10000	V / μS
Typical Thermal Resistance ³	R _{θJC}	25	°C / W
Typical Thermal Resistance ²	R _{θJL}	20	°C / W
Operating Temperature Range	T _J	-50~150	°C
Storage temperature	T _{STG}	-50~150	°C

Notes:

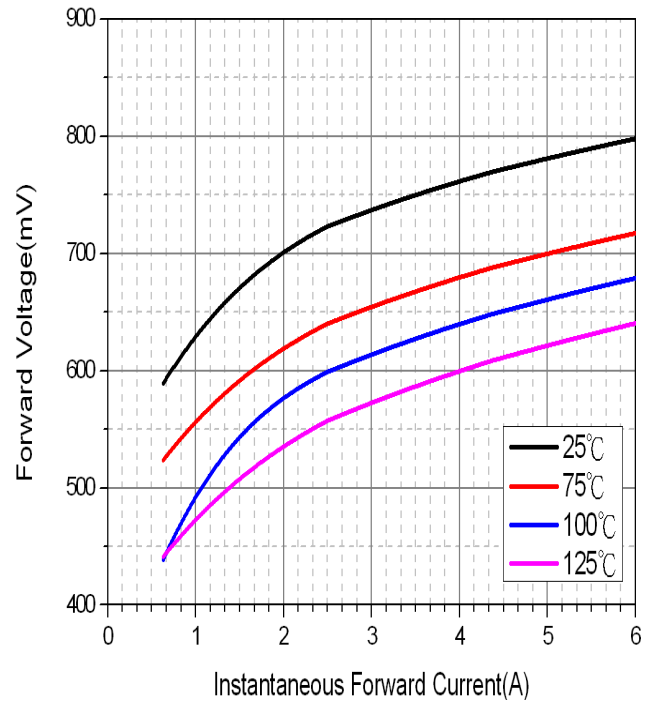
1. Measured at 1MHz and applied reverse voltage of 5.0 V D.C.
2. Thermal Resistance Junction to Lead.
3. Thermal Resistance Junction to Case.
4. Pulse test: 300μs pulse width, 1% duty cycle.

RATINGS AND CHARACTERISTIC CURVES

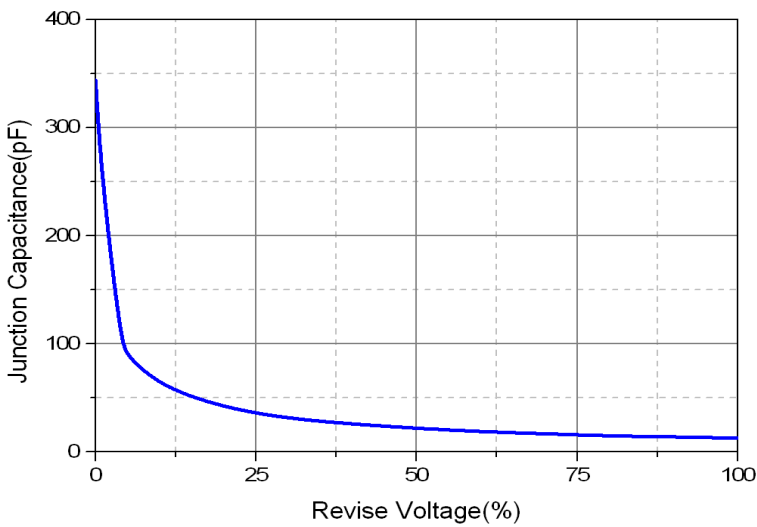
Typical Forward Current Derating Curve



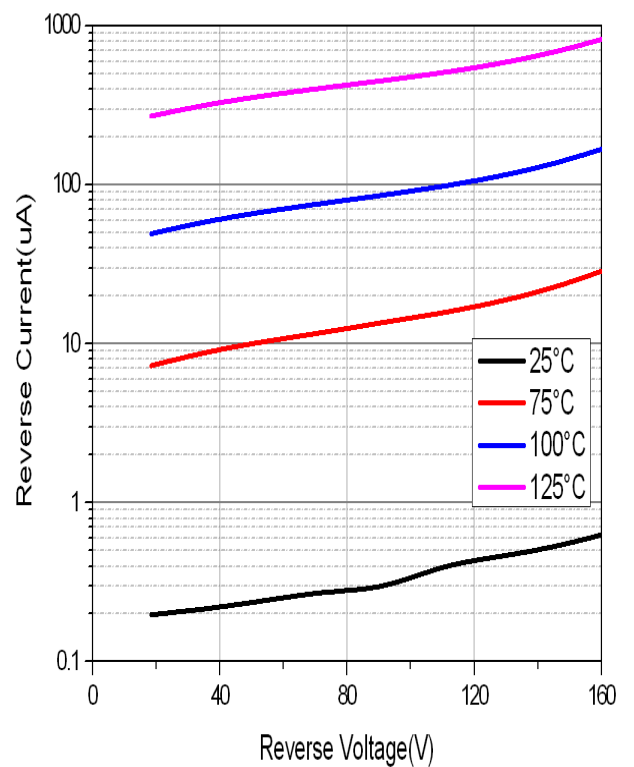
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current

