Elektronische Bauelemente

SM3150C

Voltage 150 V

3.0 Amp Schottky Barrier Rectifiers

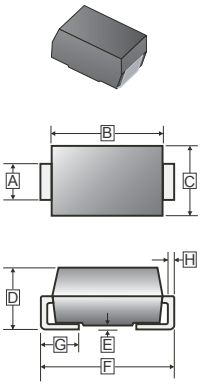
RoHS Compliant Product

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 Revise Current

SMC



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

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

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%.)

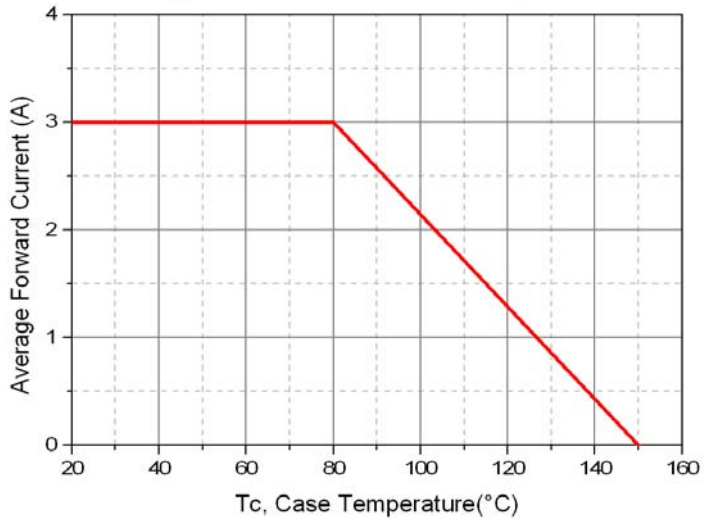
Parameter		Symbol	Rating	Unit
Peak Repetitive Peak reverse voltage		V_{RRM}	150	V
Working Peak Reverse Voltage		V_{RSM}	150	V
Maximum DC Blocking Voltage		V_{DC}	150	V
Average Forward Current		$I_{F(AV)}$	3	A
Peak Forward Current @ 8.3 ms Half Sine		I_{FSM}	80	A
Maximum Instantaneous Forward Voltage @ 3A	T_J=25°C	V_F	0.85	V
	T_J=125°C		0.7	
Maximum DC Reverse Current At Rated DC Blocking Voltage [4]	T_J=25°C	I_R	0.02	mA
	T_J=125°C		10	
Typical Junction Capacitance [1]		C_J	300	pF
Voltage Rate of Chance (Rated VR)		dv/dt	10000	V / μS
Typical Thermal Resistance [3]		$R_{\theta JC}$	25	°C / W
Typical Thermal Resistance [2]		$R_{\theta JL}$	20	°C / W
Operating Temperature Range		T_J	-50~150	°C
Storage temperature		T_{STG}	-50~150	°C

Notes:

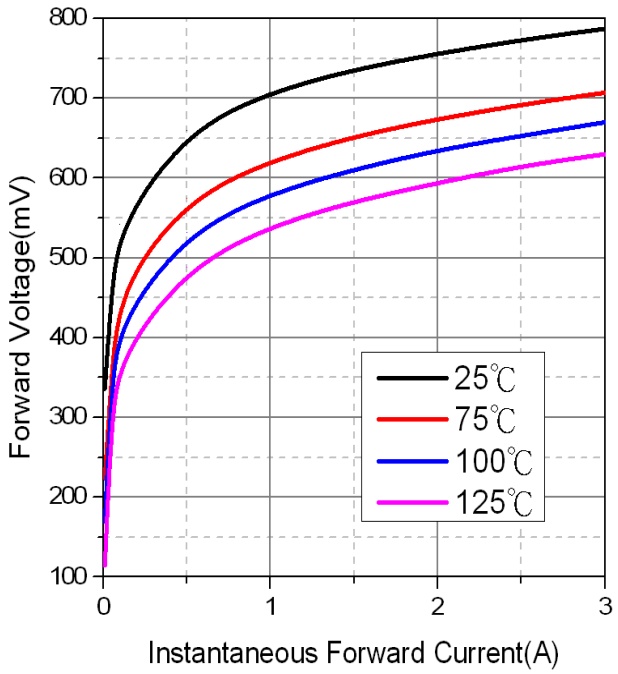
1. Measured at 1MHz and applied reverse voltage of 5.0 V D.C.
2. Thermal Resistance Junction to Lead.
3. Thermal Resistance Junction to Case.
4. Pulse test: 300μs pulse width, 1% duty cycle.

RATINGS AND CHARACTERISTIC CURVES

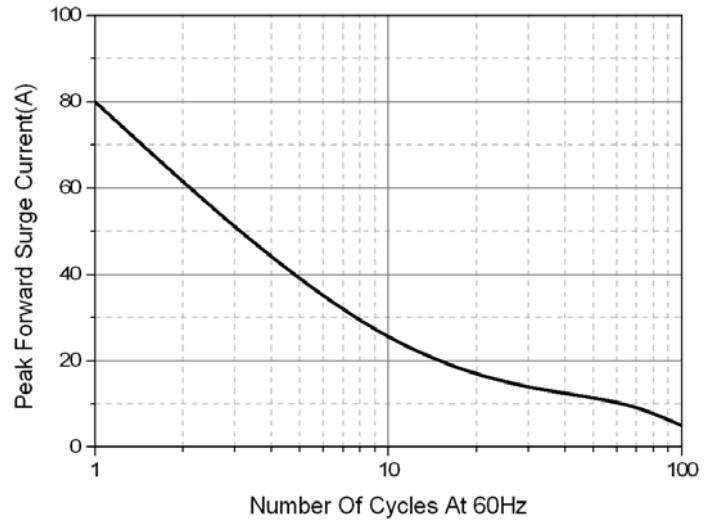
Typical Forward Current Derating Curve



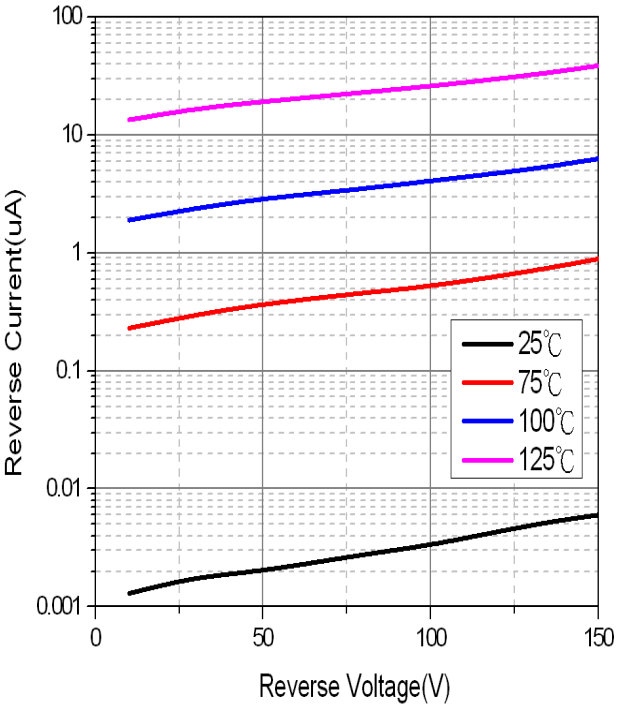
Typical Forward Characteristic



Maximum Non-Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance