

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

FEATURES

- Trench MOS Schottky technology
- Low forward voltage drop
- Low reverse current
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

MECHANICAL DATA

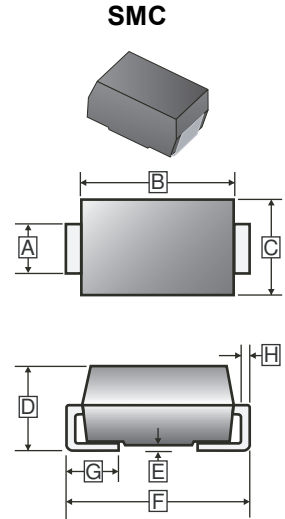
- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Mounting position: Any

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMC	3K	13 inch

ORDER INFORMATION

Part Number	Type
SK5100C	Lead (Pb)-free
SK5100C-C	Lead (Pb)-free and Halogen-free



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	

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
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RSM}	100	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current	I_F	5	A
Peak Forward Surge Current, 8.3 ms single half sine-wave Superimposed on rated load (JEDEC method)	I_{FSM}	80	A
Voltage Rate of Change (Rated V_R)	dv/dt	10000	V / μs
Typical Thermal from Junction to Case	$R_{\theta JC}$	25	°C / W
Typical Thermal from Junction to Lead	$R_{\theta JL}$	20	°C / W
Operating and Storage Temperature Range	T_J, T_{STG}	-40~150	°C

ELECTRICAL CHARACTERISTICS

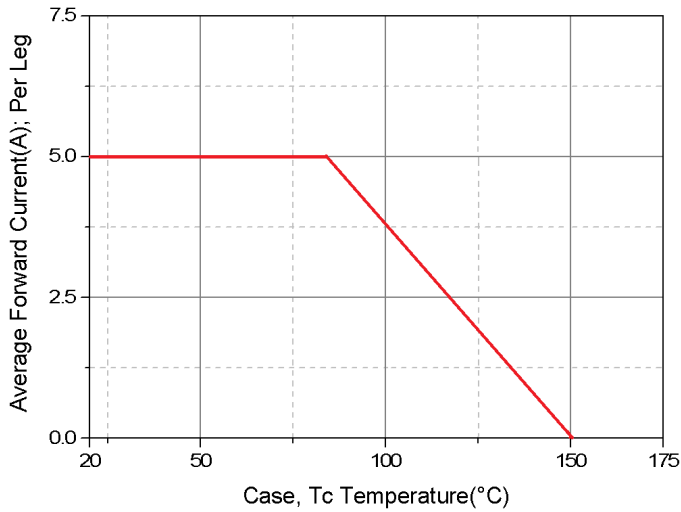
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Maximum Instantaneous Forward Voltage	V_F	0.55	0.63	V	$I_F=3A, T_J=25^\circ C$
		0.65	0.75		$I_F=5A, T_J=25^\circ C$
		0.60	-		$I_F=5A, T_J=125^\circ C$
Maximum DC Reverse Current at Rated DC Blocking Voltage ²	I_R	-	0.1	mA	$T_J=25^\circ C$
		-	10		$T_J=100^\circ C$
Typical Junction Capacitance ¹	C_J	300	-	pF	

Notes:

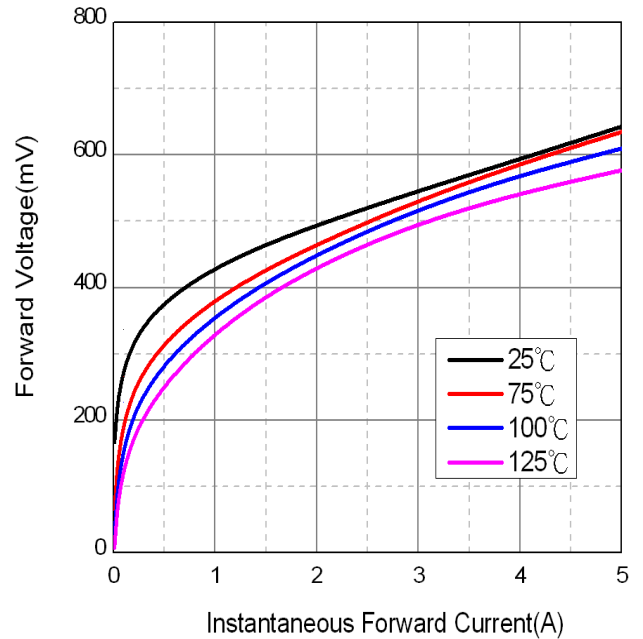
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Pulse Test : Pulse Width = 300 μs , Duty Cycle \leq 2.0%.

RATINGS AND CHARACTERISTIC CURVES

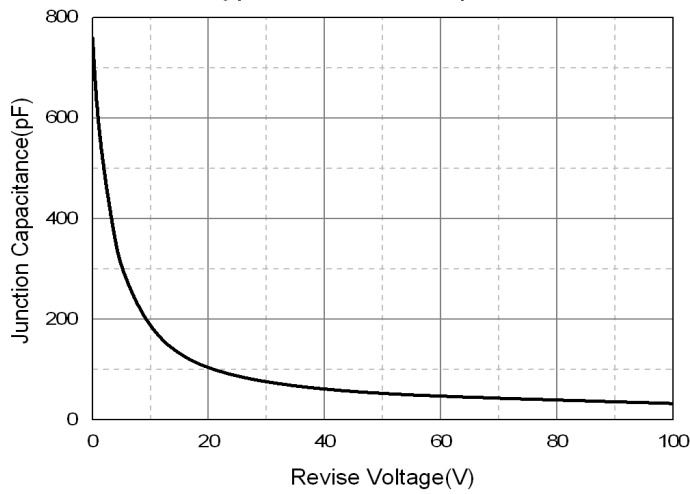
Typical Forward Current Derating Curve



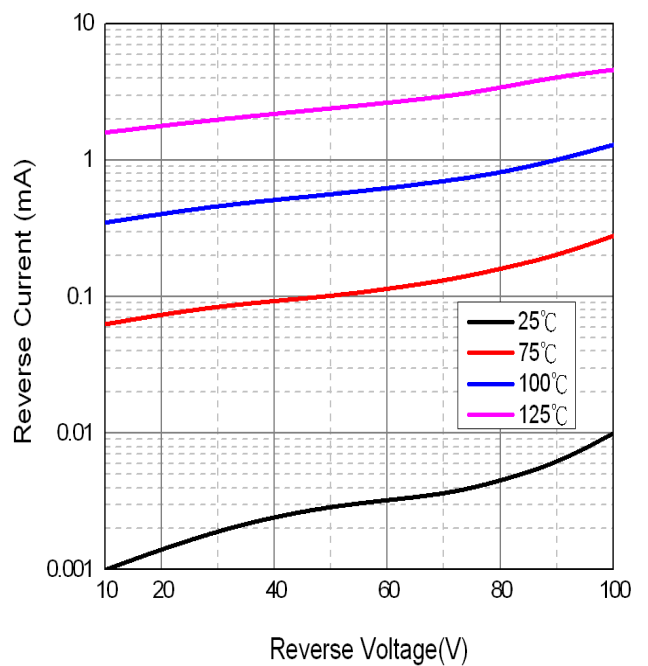
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current

