

RoHS Compliant Product

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

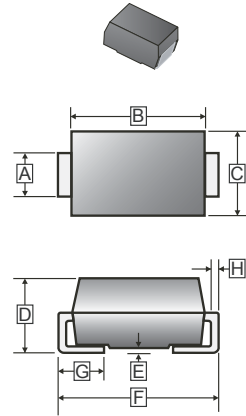
FEATURES

- Surface mount device
- High surge current capability
- Low reverse current
- Component in accordance to RoHS 2002/95/EC

MECHANICAL DATA

- Cases : DO-214AB(SMC)
- Case Material : Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals : Lead Free Plating(Tin Finish)
Solderable Per MIL-STD-202, Method 208
- Polarity : Cathode Band
- Weight : 0.231 grams(approximate)

SMC



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.750	3.250	E	-	0.203
B	6.520	7.110	F	7.750	8.130
C	5.590	6.220	G	0.760	1.520
D	2.000	2.620	H	0.150	0.305

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	Part Number							Unit
		SMF 501C	SMF 502C	SMF 503C	SMF 504C	SMF 505C	SMF 506C	SMF 507C	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	I_F	5							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	100							A
Maximum Instantaneous Forward Voltage @ 5.0A	V_F	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	10							μA
	$T_A=100^\circ\text{C}$	100							
Typical Junction Capacitance ¹	C_J	50							pF
Maximum Reverse Recovery Time ²	T_{rr}	150			250		500		ns
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	50							°C / W
Storage and Operating Temperature Range	T_{STG}, T_J	-55~150							°C

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.
2. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$.

CHARACTERISTIC CURVES

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

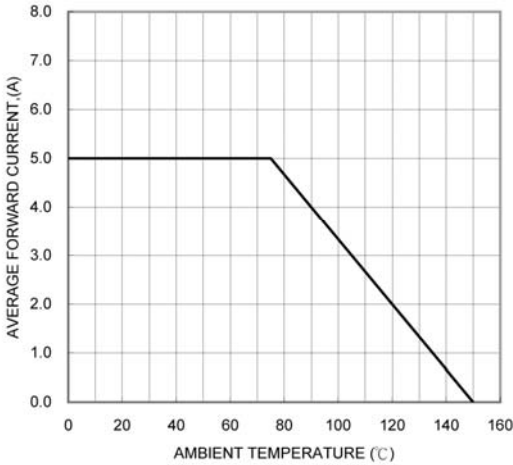


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

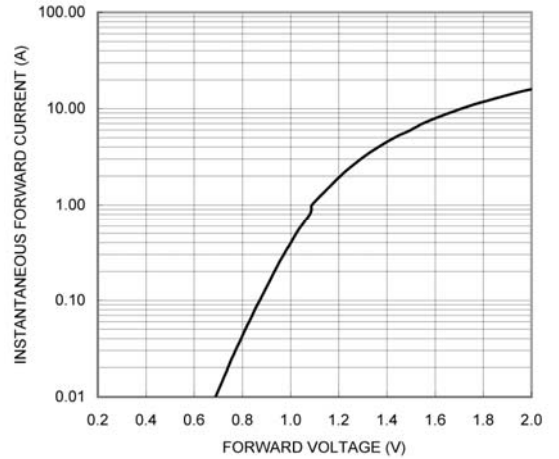


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

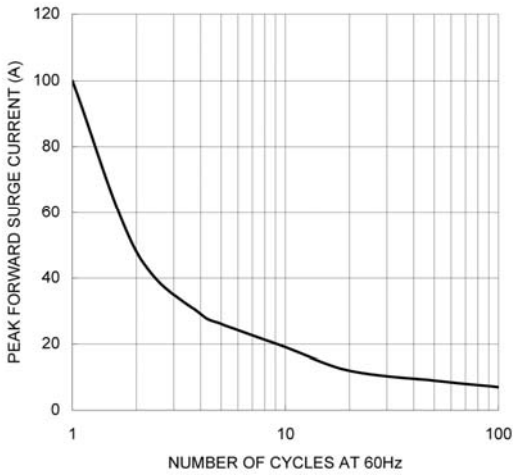


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

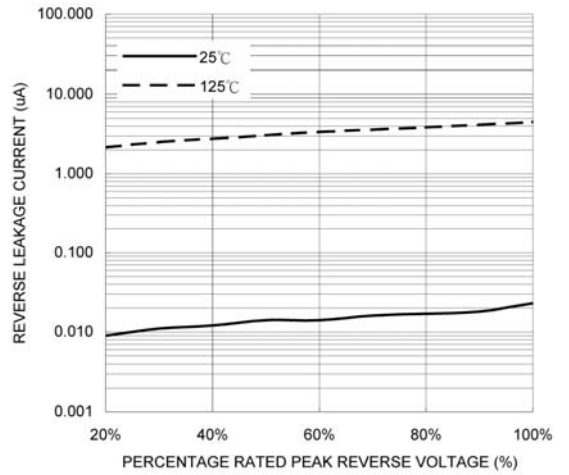


FIG. 5-TYPICAL JUNCTION CAPACITANCE

