

RoHS Compliant Product

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

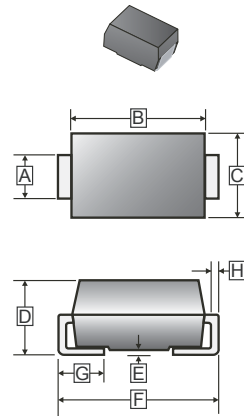
FEATURES

- 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



PACKAGE INFORMATION

Package	MPQ	Leader Size
SMC	3K	13' inch

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

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%.)

or capacitive load, 50% duty cycle, 50% 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°C	I _R	10							μA
	T _A =100°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 _{θJA}	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 $I_F=0.5A$, $I_R=1A$, $IRR=0.25A$.

CHARACTERISTIC CURVES

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

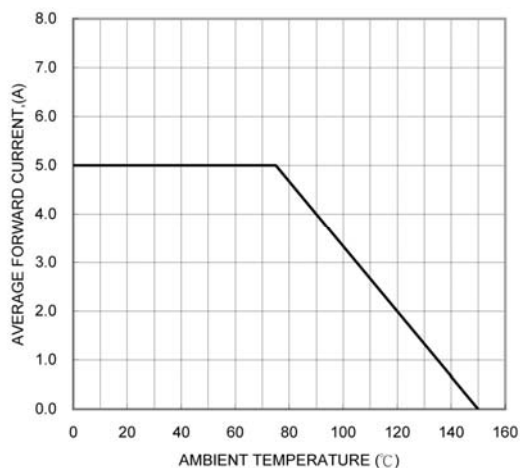


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

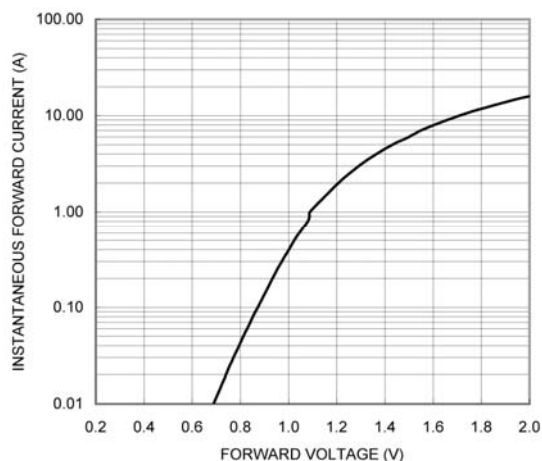


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

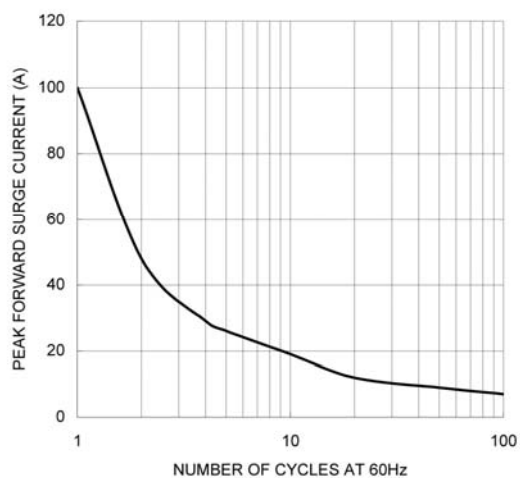


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

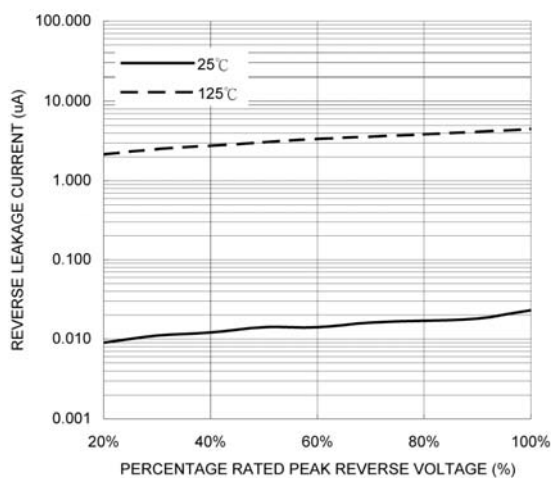


FIG. 5-TYPICAL JUNCTION CAPACITANCE

