

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

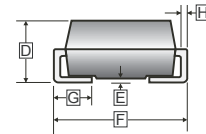
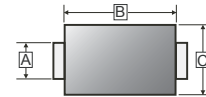
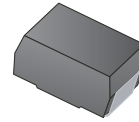
FEATURES

- RoHS Compliant Product
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

MECHANICAL DATA

- Case : Molded Plastic
- Epoxy : UL 94V-0 Rate Flame Retardant
- Metallurgically bonded construction
- Polarity : Color Band Denotes Cathode End
- Mounting Position: Any
- Weight : 1.10 grams

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

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, derate current by 20%.

TYPE NUMBER	SYMBOL	SM520C	SM540C	SM560C	UNITS
Peak Repetitive Peak reverse voltage	V_{RRM}	20	40	60	V
Working Peak Reverse Voltage	V_{RWM}	20	40	60	
Maximum DC Blocking Voltage	V_R	20	40	60	
Maximum Average Forward Current, See Fig. 1	$I_{F(AV)}$	5			A
Peak Forward Surge Current @ 8.3 ms Half Sine-Wave superimposed on rated load (JEDEC method)	I_{FSM}	125			
Maximum Instantaneous Forward Voltage $V_F @ I_F = 5.0 A, T_A = 25^\circ C$	V_F	0.55		0.65	V
Maximum DC Reverse Current At Rated DC Blocking Voltage @ $T_J = 25^\circ C$ At Rated DC Blocking Voltage @ $T_J = 100^\circ C$	I_R	0.2 30		0.1 15	mA
Typical Junction Capacitance (Note 1)	C_J	380			pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	10			°C / W
Operating Temperature Range	T_J	-50 ~ + 150			°C
Storage temperature	T_{STG}	-65 ~ + 175			°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0 V D.C.
2. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5" (12.7mm) Lead Length.

CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

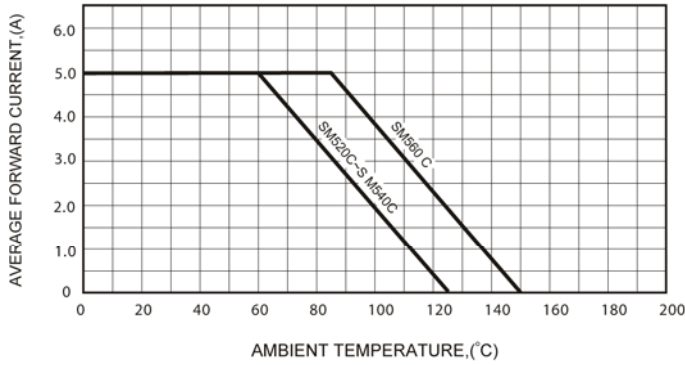


FIG.2-TYPICAL FORWARD CHARACTERISTICS

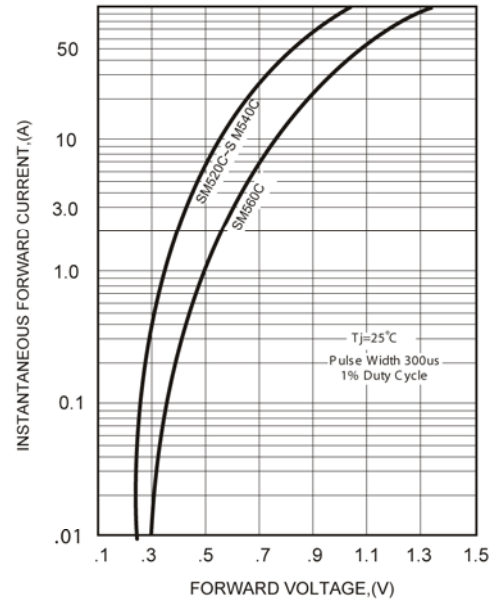


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

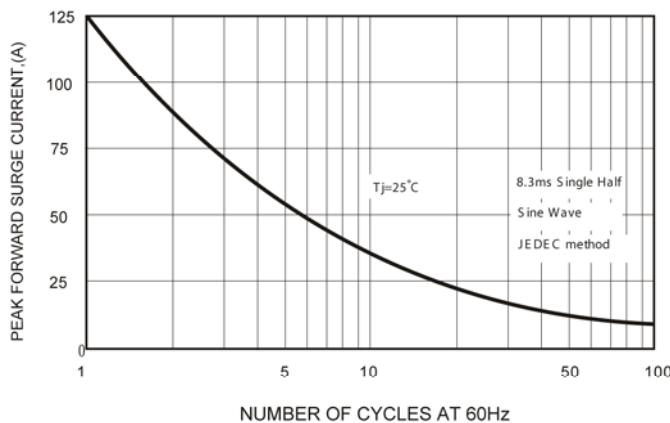


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

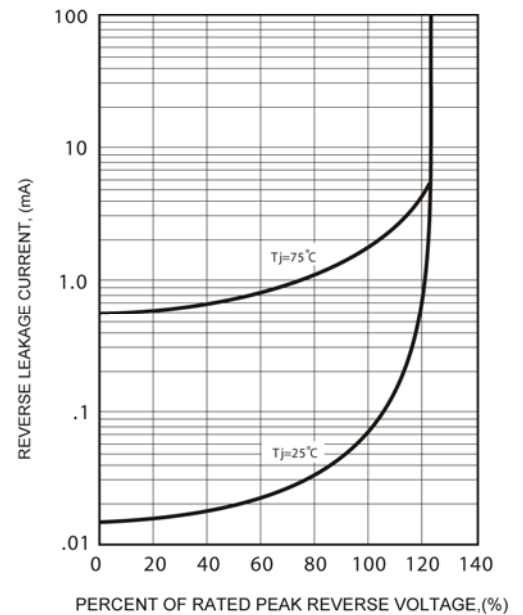


FIG.4-TYPICAL JUNCTION CAPACITANCE

