

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

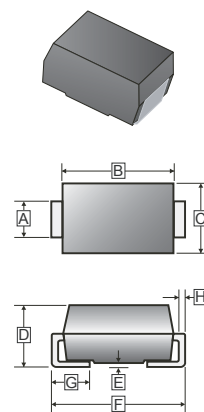
FEATURES

- 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

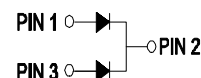
SMC



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

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
			SM1020C	SM1040C	SM1060C	SM10100C	
Peak Repetitive Peak reverse voltage		V_{RRM}	20	40	60	100	V
Working Peak Reverse Voltage		V_{RWM}	20	40	60	100	
Maximum DC Blocking Voltage		V_R	20	40	60	100	
Maximum Average Forward Current, See Fig. 1		$I_{F(AV)}$	10				A
Peak Forward Surge Current @ 8.3 ms Half Sine-Wave superimposed on rated load (JEDEC method)		I_{FSM}	180				
Maximum Instantaneous Forward Voltage V_F @ $I_F = 10$ A, $T_A = 25^{\circ}C$		V_F	0.56		0.7	0.83	V
Maximum DC Reverse Current At Rated DC Blocking Voltage	$T_J = 25^{\circ}C$	I_R	0.3		0.2	0.1	mA
	$T_J = 100^{\circ}C$		22		15	10	
Typical Junction Capacitance ¹		C_J	380				pF
Typical Thermal Resistance		$R_{\theta JC}$	10				$^{\circ}C / W$
Operating Temperature Range		T_J	-50~150				$^{\circ}C$
Storage temperature		T_{STG}	-65~175				$^{\circ}C$

Notes:

1. Measured at 1MHz and applied reverse voltage of 4.0 V D.C.

CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

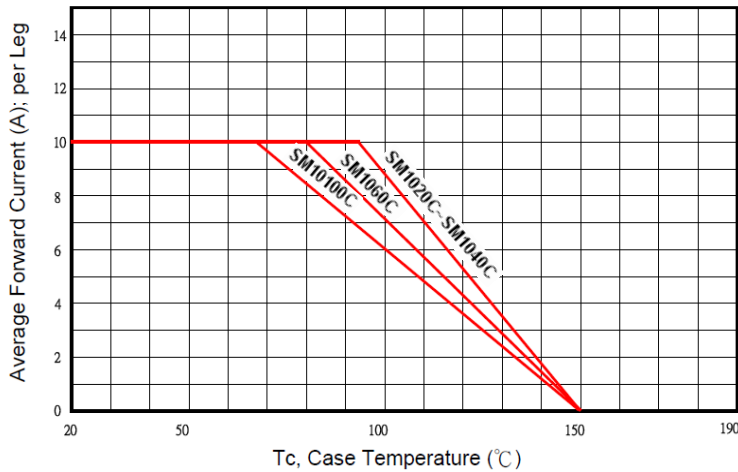


FIG.2-TYPICAL FORWARD CHARACTERISTICS

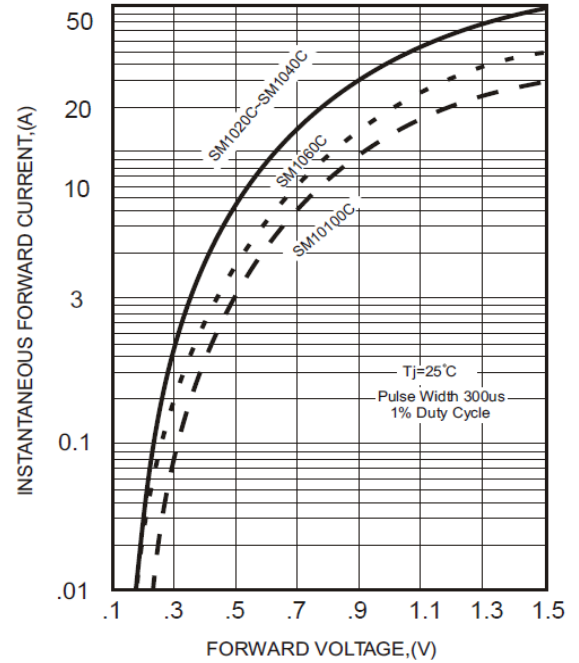


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

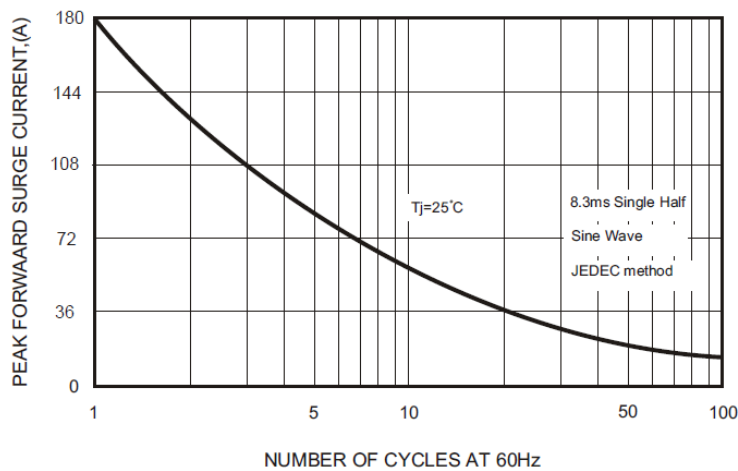


FIG.4-TYPICAL JUNCTION CAPACITANCE

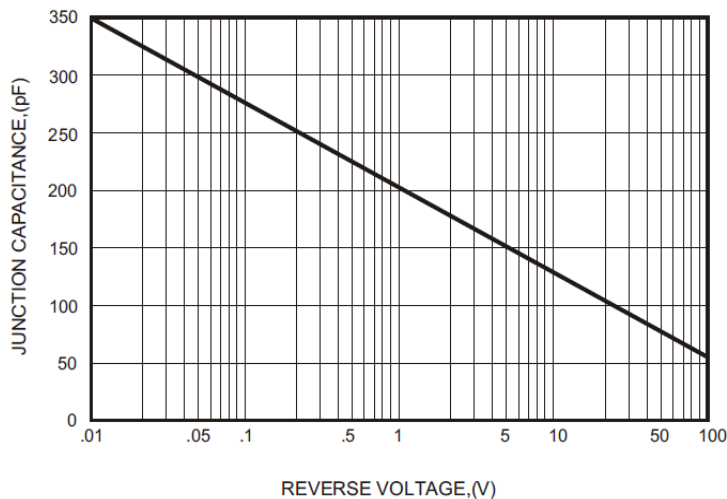


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

