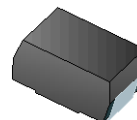


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

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

SMC



MECHANICAL DATA

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

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMC	3K	13 inch

ORDER INFORMATION

Part Number	Type
SM820C-C~SM8100C-C	Lead (Pb)-free and Halogen-free

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
			SM840C-C	SM860C-C	SM8100C-C	
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	40	60	100	V
Maximum RMS Voltage		V _{RSM}	28	42	70	V
Maximum DC Blocking Voltage		V _{DC}	40	60	100	V
Average Rectified Output Current @T _L =100°C		I _F	8			A
Peak Forward Surge Current @8.3ms Half Sine-Wave superimposed on rated load (JEDEC method)		I _{FSM}	150			
Forward Voltage @I _F =8A		V _F	0.55	0.67	0.82	V
Maximum DC Reverse Current @Rated DC Blocking Voltage	T _A =25°C	I _R	0.1		0.05	mA
	T _A =100°C		10		5	
Typical Junction Capacitance ¹		C _J	350		200	pF
Thermal Resistance Junction-Ambient ²		R _{θJA}	80			°C/W
Operating and Storage Temperature Range		T _J , T _{STG}	-55~150			°C

Notes:

1. Measured at 1MHz and applied reverse voltage of 4V D.C.
2. Device mounted on FR-4 substrate, 1"*1", 2oz, single-sided, PC boards with 0.1"*0.15" copper pad.

CHARACTERISTIC CURVES

Fig. 1 Forward Current Derating Curve

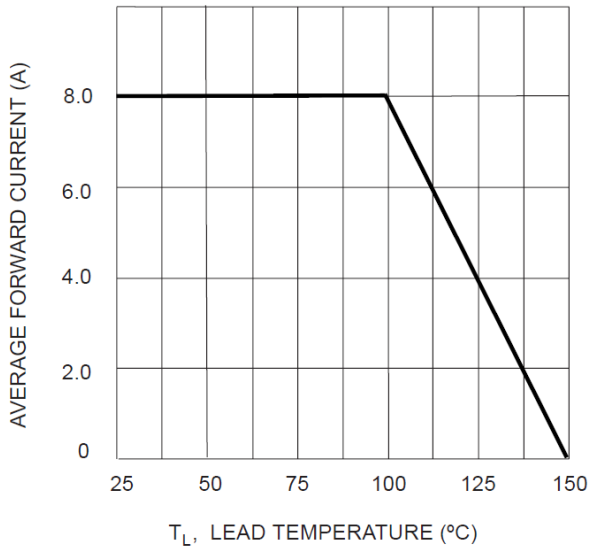


Fig. 2 Typ. Forward Characteristics

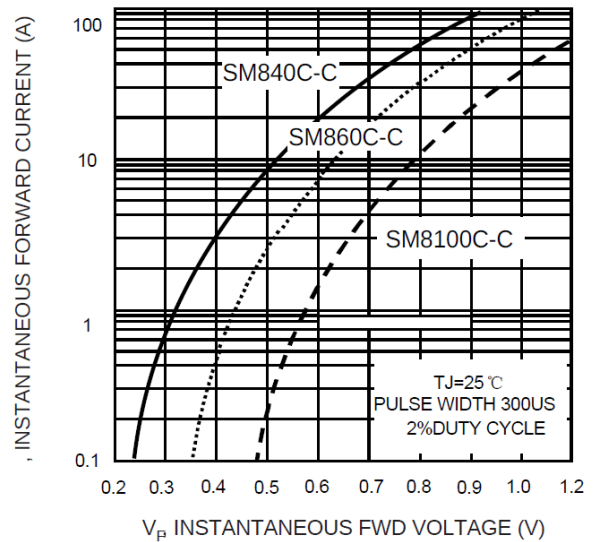


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

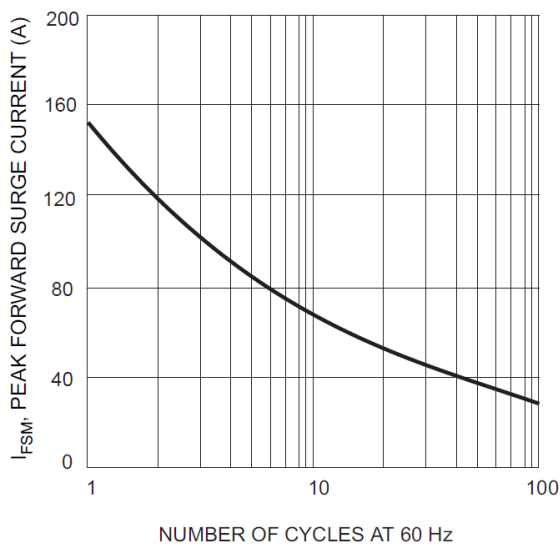
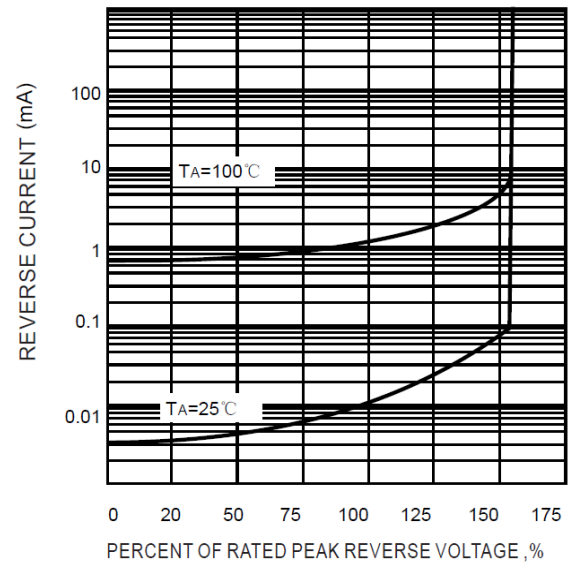
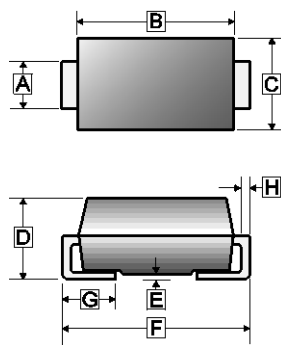


FIG.4 TYPICAL REVERSE CHARACTERISTIC



PACKAGE OUTLINE DIMENSIONS

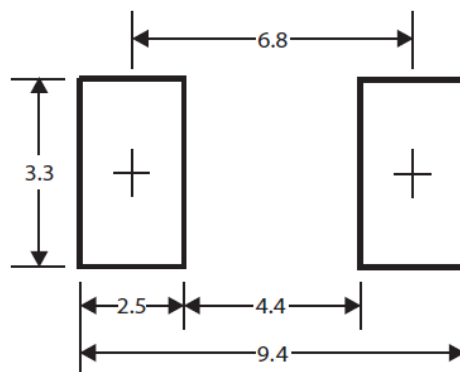
SMC



REF.	Millimeter	
	Min.	Max.
A	2.75	3.27
B	6.52	7.11
C	5.50	6.22
D	1.98	2.62
E	-	0.203
F	7.64	8.17
G	0.75	1.60
H	0.23 TYP.	

MOUNTING PAD LAYOUT

SMC



*Dimensions in millimeters