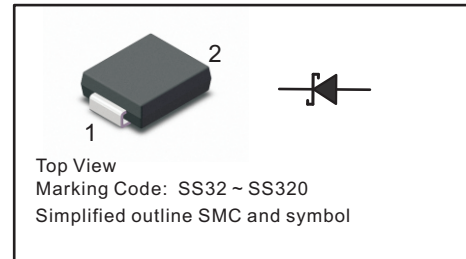


Surface Mount Schottky Barrier Rectifier  
 Reverse Voltage - 20 to 200 V  
 Forward Current - 3 A

**PINNING**

PIN	DESCRIPTION
1	Cathode
2	Anode


**FEATURES**

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

**MECHANICAL DATA**

- Case: SMC
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.22g / 0.0077oz

**Maximum Ratings and Electrical characteristics**

Ratings at 25 °C ambient temperature unless otherwise specified.

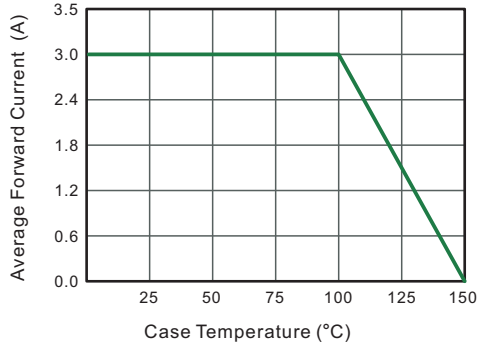
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	30BQ020	30BQ040	30BQ060	30BQ080	30BQ100	30BQ120	30BQ150	30BQ200	Units
		SS32C	SS34C	SS36C	SS38C	SS310C	SS312C	SS315C	SS320C	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	$V_{RMS}$	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3.0								A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	80								A
Max Instantaneous Forward Voltage at 3 A	$V_F$	0.55	0.70		0.85		0.95			V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$	$I_R$	0.5 5			0.3 3					mA
Typical Junction Capacitance <sup>(1)</sup>	$C_j$	450			350					pF
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$	50								°C/W
Operating Junction Temperature Range	$T_j$	-55 ~ +150								°C
Storage Temperature Range	$T_{stg}$	-55 ~ +150								°C

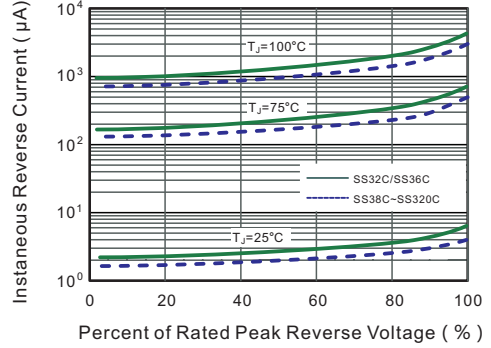
(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

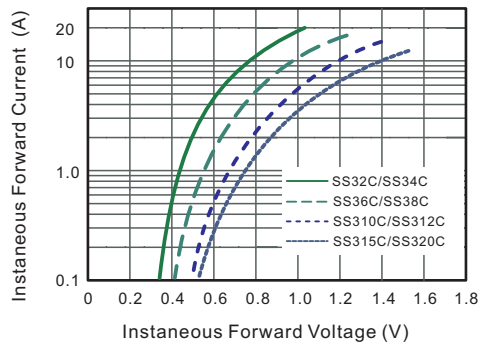
**Fig.1 Forward Current Derating Curve**



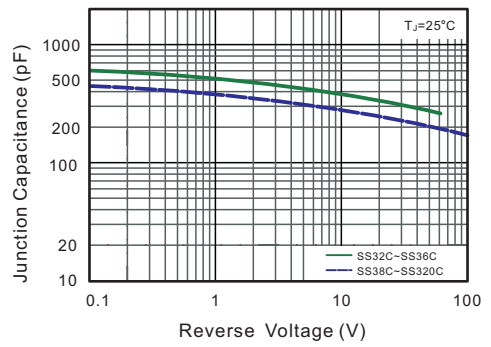
**Fig.2 Typical Reverse Characteristics**



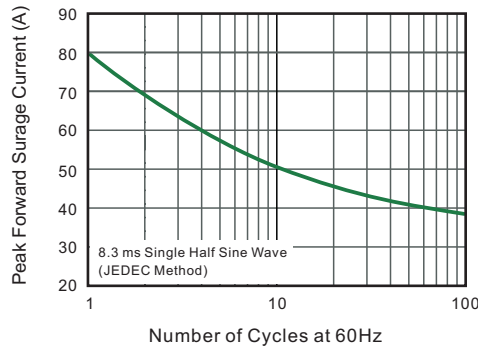
**Fig.3 Typical Forward Characteristic**



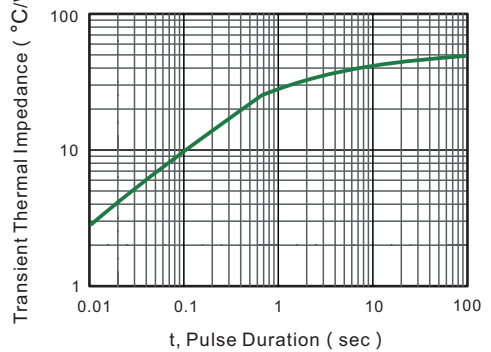
**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**

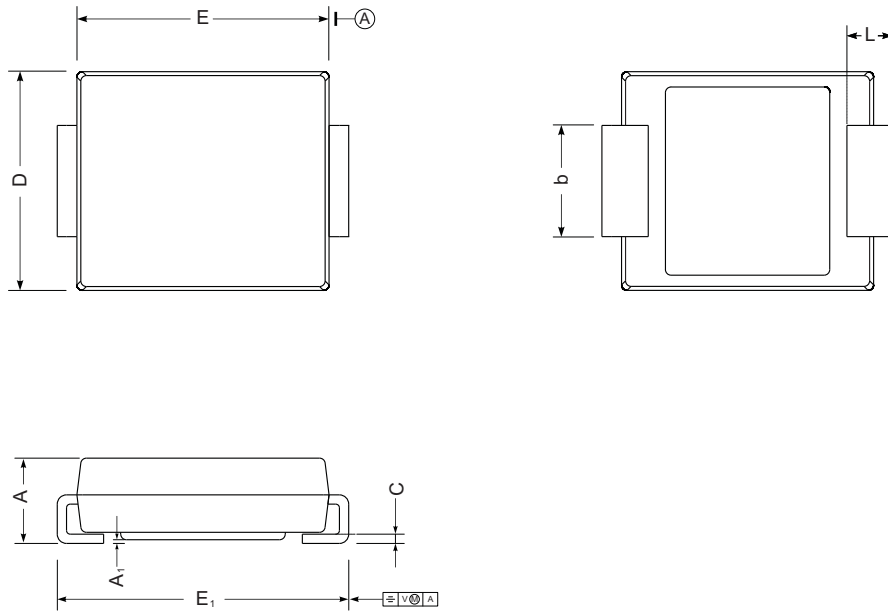


**Fig.6- Typical Transient Thermal Impedance**



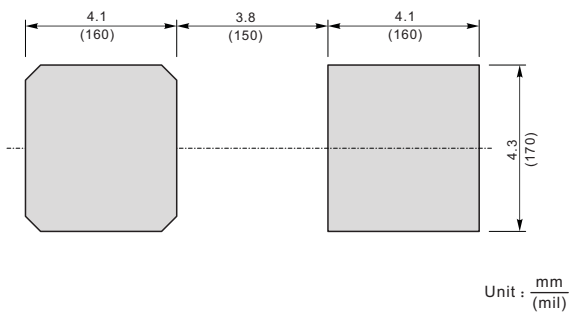
**PACKAGE OUTLINE**

Plastic surface mounted package; 2 leads



SMC mechanical data

UNIT		A	E	D	E <sub>1</sub>	A <sub>1</sub>	C	L	b
mm	max	2.62	7.0	6.2	8.0	0.21	0.31	1.6	3.25
	min	2.00	6.5	5.6	7.6	0.05	0.15	0.9	2.75
mil	max	103	276	244	315	8.3	12	63	128
	min	79	256	220	299	2.0	5.9	35	108

**The recommended mounting pad size**

 Unit:  $\frac{\text{mm}}{\text{mil}}$ 
**Marking**

Type number	Marking code
30BQ020/SS32C	SS32
30BQ040/SS34C	SS34
30BQ060/SS36C	SS36
30BQ080/SS38C	SS38
30BQ100/SS310C	SS310
30BQ120/SS312C	SS312
30BQ150/SS315C	SS315
30BQ200/SS320C	SS320