

Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 40V to 200V

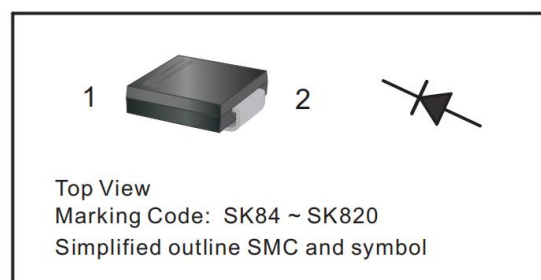
Forward Current - 8A

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings and Electrical characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20%

Parameter	Symbol	SK84 CG	SK86 CG	SK88 CG	SK810 CG	SK812 CG	SK815 CG	SK820 CG	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	40	60	80	100	120	150	200	V
Maximum RMS Voltage	V _{RMS}	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V _{DC}	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	I _{F(AV)}	8.0							A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed On Rated Load(JEDEC method)	I _{FSM}	150							A
Peak Forward Surge Current,1.0ms Single Half Sine-wave Superimposed On Rated Load(JEDEC method)	I _{FSM}	300							A
I ² t Rating for fusing (3ms≤8.3ms)	I ² t	93.3							A ² S
Max Instantaneous Forward Voltage at 8A	V _F	0.55	0.70	0.85		0.95			V
Maximum DC Reverse Current T _A =25°C at Rated DC Reverse Voltage T _A =100°C	I _R	1.0							mA
		50							
Typical Junction Capacitance ⁽¹⁾	C _j	410	330	220		130			pF
Typical Thermal Resistance ⁽²⁾	R _{θJA}	37							°C/W
	R _{θJC}	10							
	R _{θJL}	13							
Operating Junction Temperature Range	T _j	-55~+125							°C
Storage Temperature Range	T _{stg}	-55~+150							°C

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

(2) P.C.B. mounted with 1.5"×1.5" (3.81×3.81cm) copper pad areas

Typical Characteristics

Fig.1 Forward Current Derating Curve

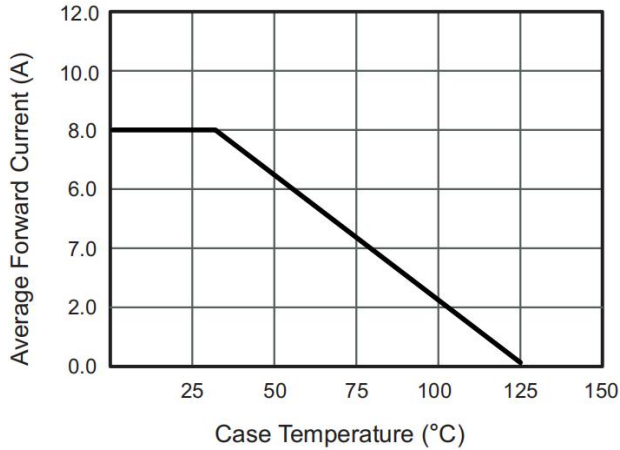


Fig.2 Typical Reverse Characteristics

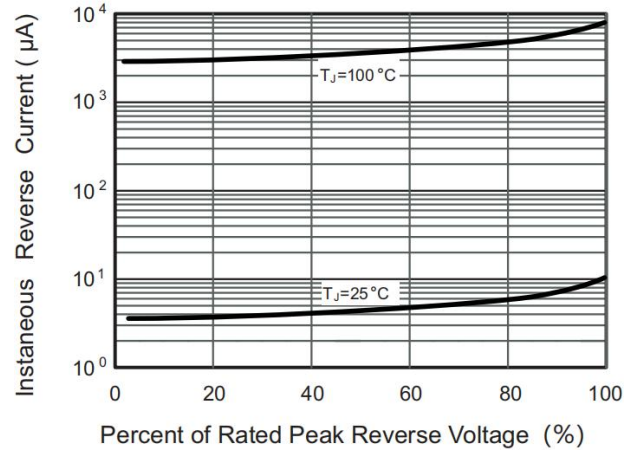


Fig.3 Typical Forward Characteristic

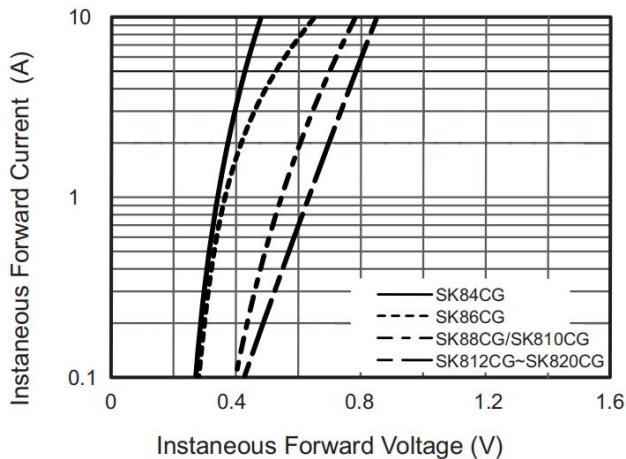


Fig.4 Typical Junction Capacitance

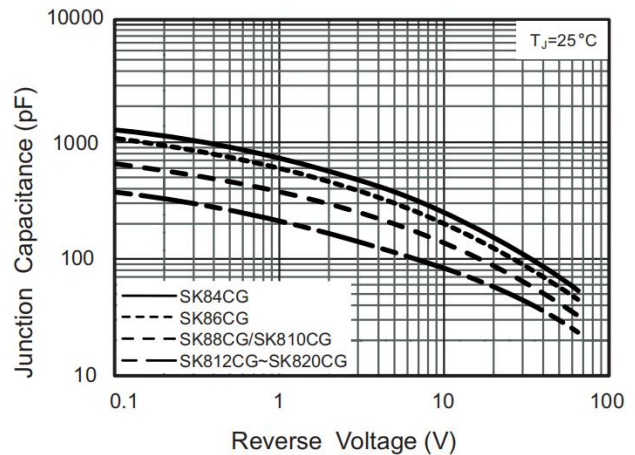
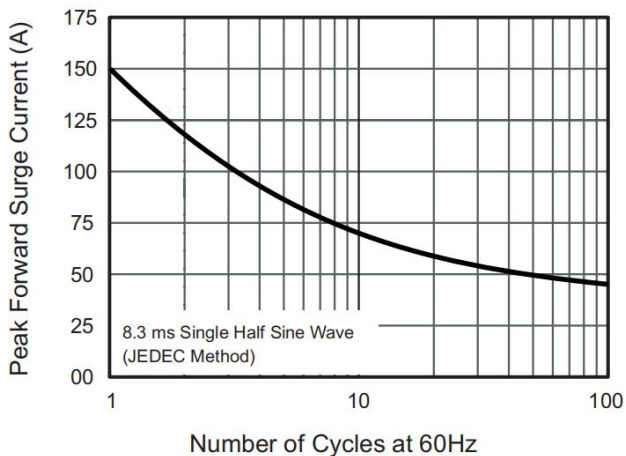


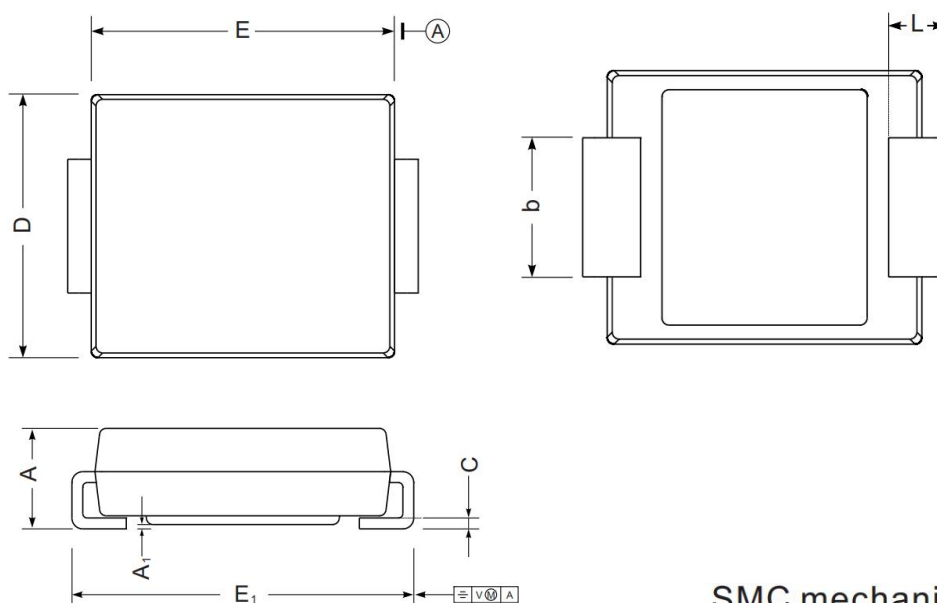
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Package Information

SMBF

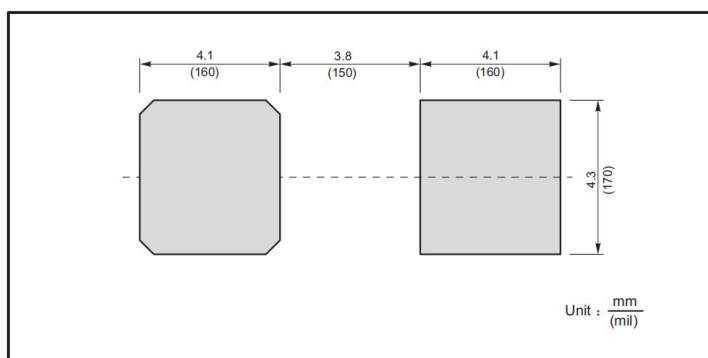
Dimensions in mm



SMC mechanical data

UNIT		A	E	D	E ₁	A ₁	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



Marking

Type number	Marking code
SK84CG	SK84
SK86CG	SK86
SK88CG	SK88
SK810CG	SK810
SK812CG	SK812
SK815CG	SK815
SK820CG	SK820

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