



SS12G THRU SS120G

Surface Mount Schottky Barrier Rectifier

Reverse Voltage -20V to 200V

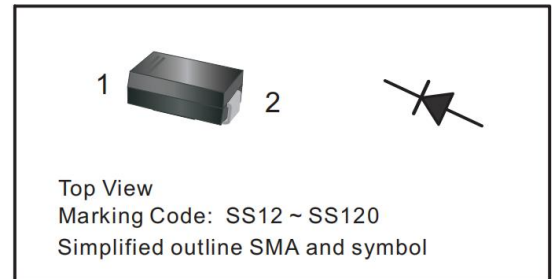
Forward Current -1.0A

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



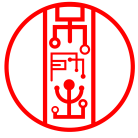
Absolute Maximum Ratings and Electrical characteristics

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	SS 12G	SS 14G	SS 16G	SS 18G	SS 110G	SS 112G	SS 115G	SS 120G	Unit
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)}	1.0								A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed On Rated Load(JEDEC method)		I _{FSM}	25								A
Peak Forward Surge Current,1.0ms Single Half Sine-wave Superimposed On Rated Load(JEDEC method)		I _{FSM}	50								A
I²t Rating for fusing (3ms≤8.3ms)		I²t	2.6								A²S
Max Instantaneous Forward Voltage at 1A		V _F	0.55		0.70	0.85			0.90		V
Maximum DC Reverse Current at Rated DC Reverse Voltage	T _a = 25°C	I _R	0.3			0.2		0.1			mA
	T _a =100°C		10			5		2			
Typical Junction Capacitance ⁽¹⁾		C _j	55	41	33	32		19		16	pF
Typical Thermal Resistance ⁽²⁾		R _{θJA}	100								°C/W
		R _{θJC}	20								
		R _{θJL}	25								
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 2.0"x2.0" (5x5cm) copper pad areas



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Typical Characteristics

Fig.1 Forward Current Derating Curve

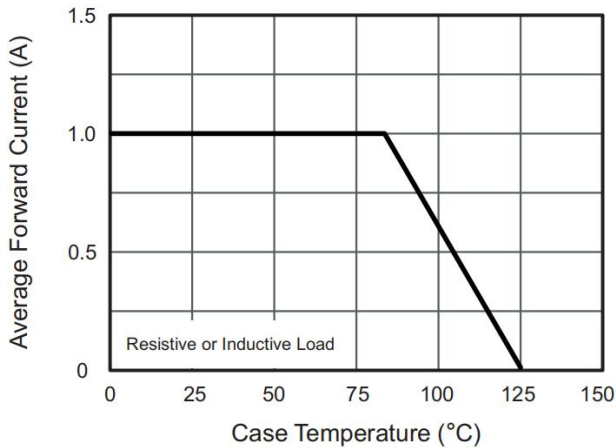


Fig.2 Typical Reverse Characteristics

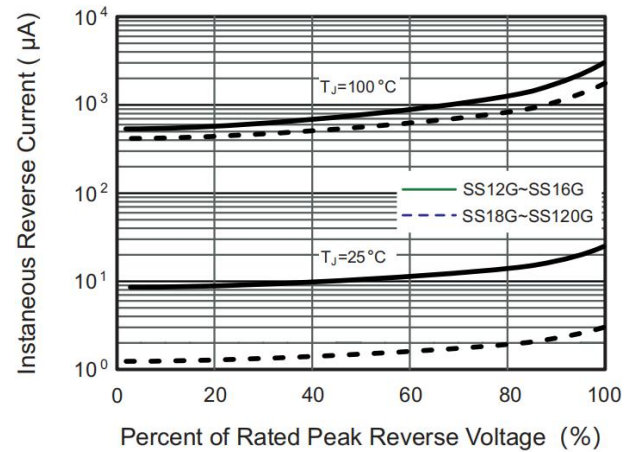


Fig.3 Typical Forward Characteristic

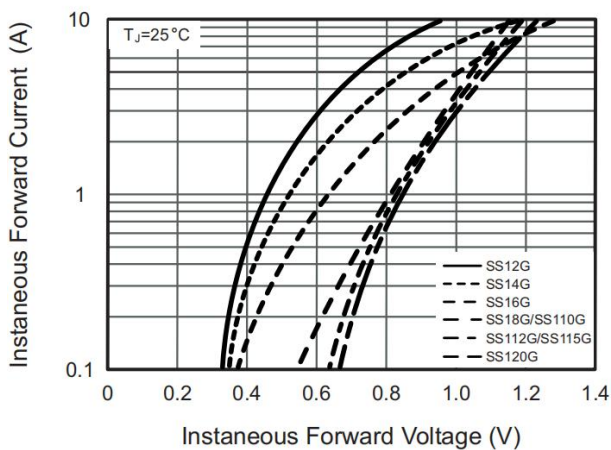


Fig.4 Typical Junction Capacitance

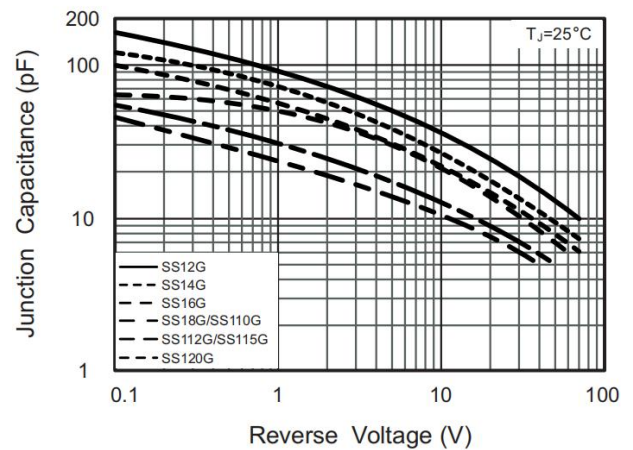
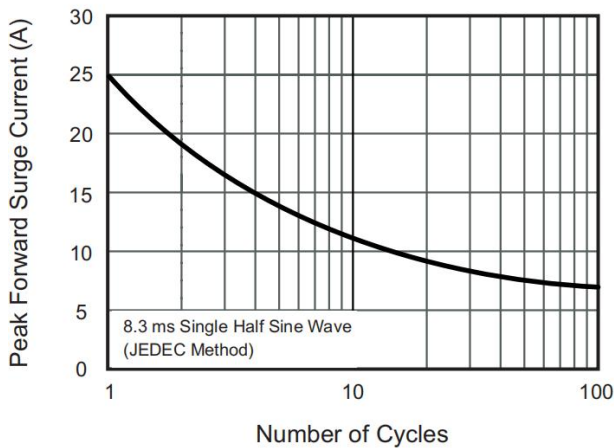


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



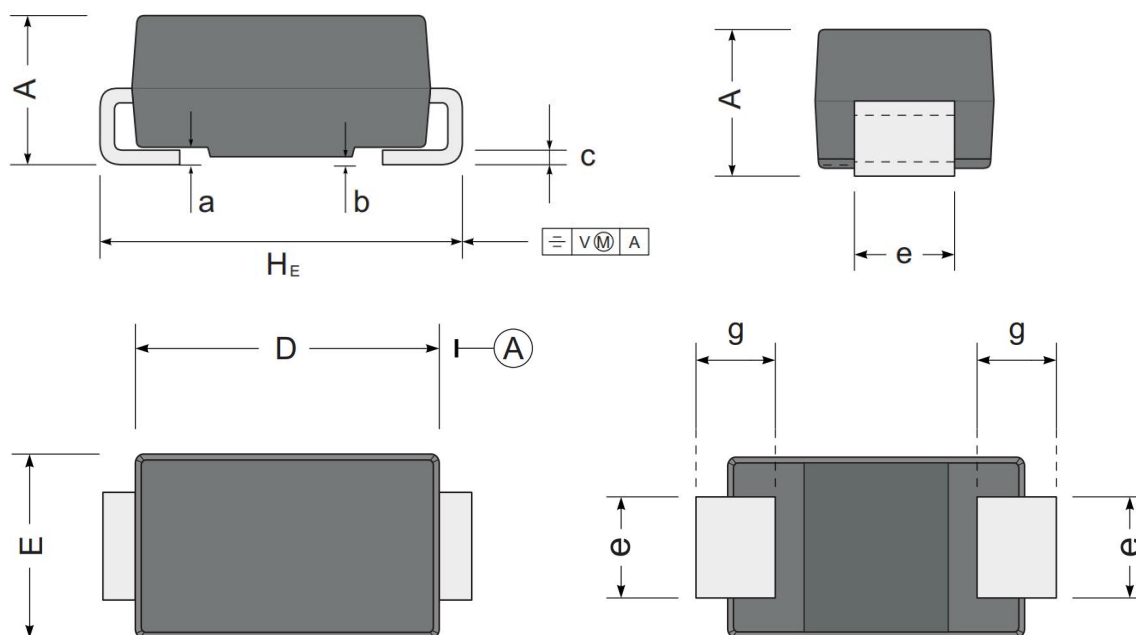


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Package Information

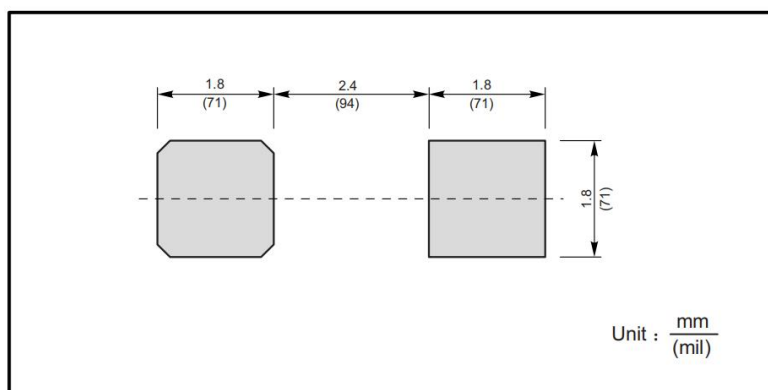
SMA

Dimensions in mm



UNIT		A	D	E	H _E	c	e	g	b	a
mm	max	2.2	4.5	2.7	5.2	0.31	1.6	1.5	0.2	0.3
	min	1.9	4.0	2.3	4.7	0.15	1.3	0.9	0.05	
mil	max	87	181	106	205	12	63	59	7.9	12
	min	75	157	91	185	6	51	35	2	

The recommended mounting pad size



Marking

Type number	Marking code
SS12G	SS12
SS14G	SS14
SS16G	SS16
SS18G	SS18
SS110G	SS110
SS112G	SS112
SS115G	SS115
SS120G	SS120



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