

Surface Mount Schottky Barrier Rectifier

Reverse Voltage -20V to 200V Forward Current -5.0A

Features

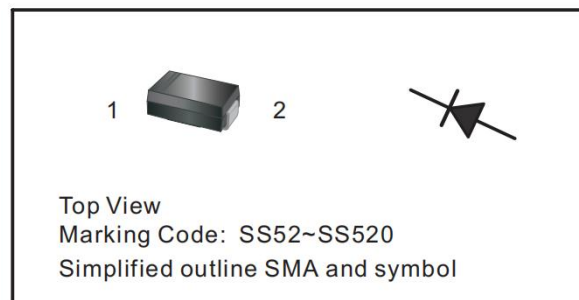
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case : SMA
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 60mg/0.0021oz

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 52G	SS 54G	SS 56G	SS 58G	SS 510G	SS 512G	SS 515G	SS 520G	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)}	5.0								A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed On Rated Load(JEDEC method)	I _{FSM}	120								A
Max Instantaneous Forward Voltage at 5A	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 50								mA
Typical Junction Capacitance ⁽¹⁾	C _j	270		220	160		100		80	pF
Typical Thermal Resistance ⁽²⁾	R _{θJA} R _{θJA} R _{θJA}	100 20 25								°C/W
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 0.2"x0.2" (5x5mm) copper pad areas

Typical Characteristics

Fig.1 Forward Current Derating Curve

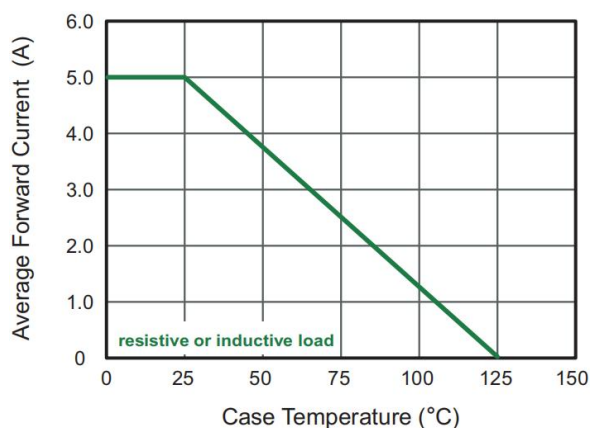


Fig.2 Typical Reverse Characteristics

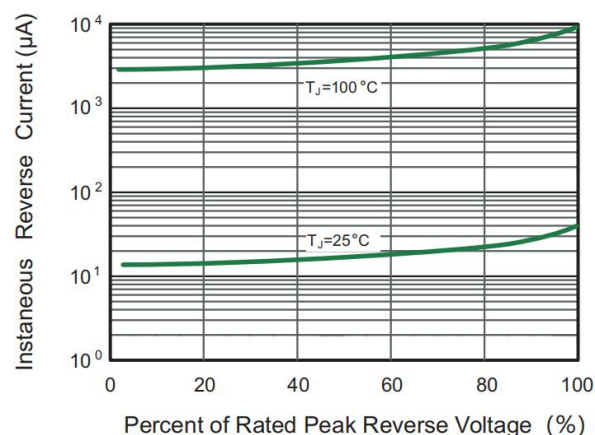


Fig.3 Typical Forward Characteristic

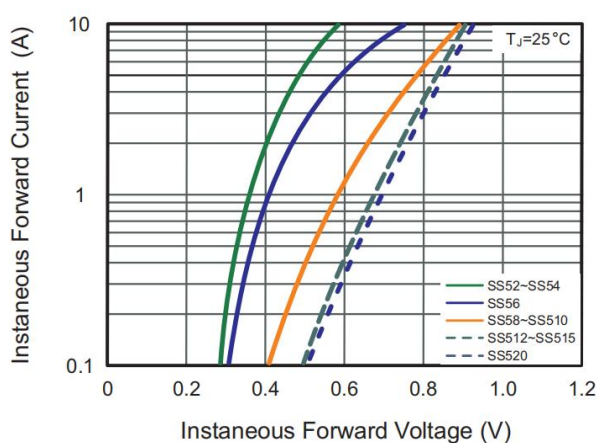


Fig.4 Typical Junction Capacitance

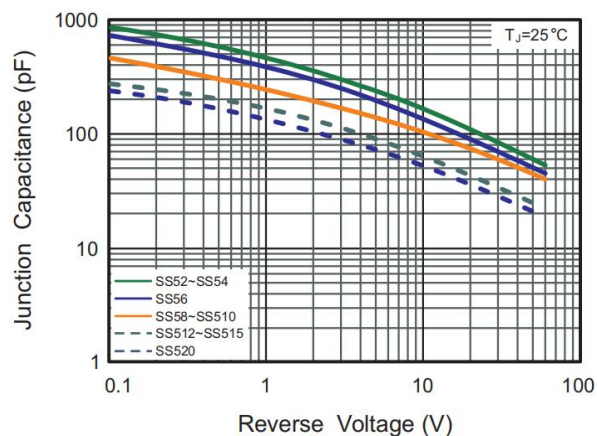
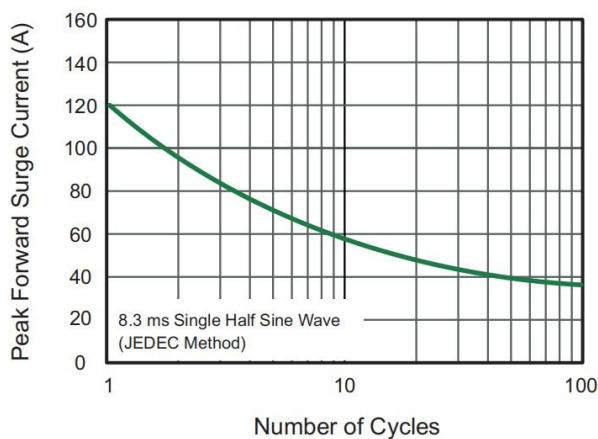


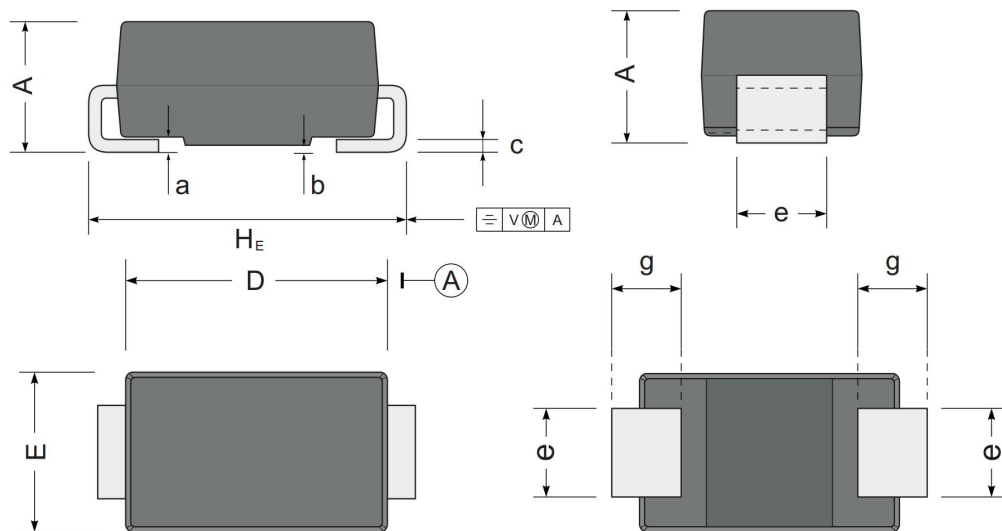
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Package Information

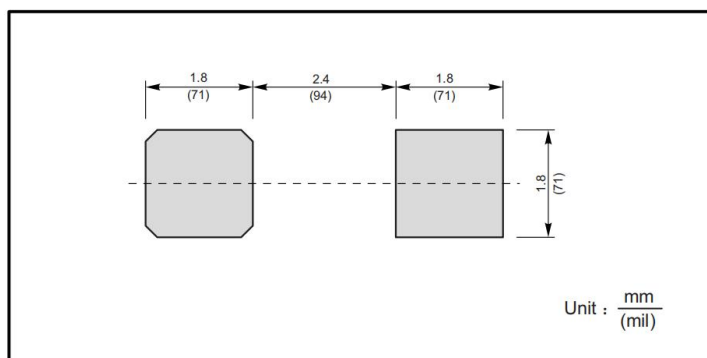
SMA

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
SS52G	SS52
SS54G	SS54
SS56G	SS56
SS58G	SS58
SS510G	SS510
SS512G	SS512
SS515G	SS515
SS520G	SS520