

# SS52 THUR SS520

## SS52 THUR SS520 Schottky Barrier Rectifiers

### General description

5.0Amp Surface Mounted Schottky Barrier Rectifiers

### FEATURES

- Flammability Classification 94V-O
- 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

### SMA/DO214AC

#### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### Maximum Ratings And Electrical Characteristics

Parameter	Symbols	SS52	SS54	SS56	SS58	SS510	SS512	SS515	SS520	Units
Maximum Repetitive Peak Reverse Voltage	VRRM	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	VRMS	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	IF(AV)	5.0								A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	IFSM	120								A
Max Instantaneous Forward Voltage at 5 A	V <sub>F</sub>	0.55	0.70		0.85				V	
Maximum DC Reverse Current T <sub>a</sub> = 25°C at Rated DC Reverse Voltage T <sub>a</sub> = 100°C	I <sub>R</sub>	1.0				50				mA
Typical Junction Capacitance <sup>(1)</sup>	C <sub>j</sub>	500	300							pF
Typical Thermal Resistance <sup>(2)</sup>	R <sub>θJA</sub>	60								°C/W
Operating Junction Temperature Range	T <sub>j</sub>	-55 ~ +150								°C
Storage Temperature Range	T <sub>stg</sub>	-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.

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## Rating And Characteristic Curves

Fig.1 Forward Current Derating Curve

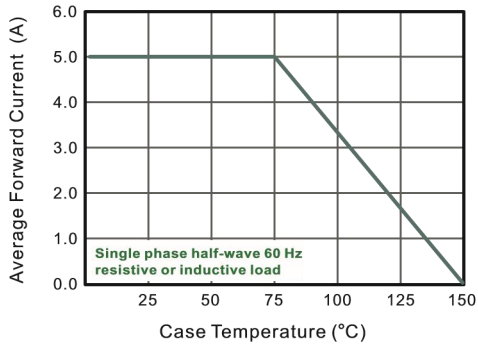


Fig.2 Typical Reverse Characteristics

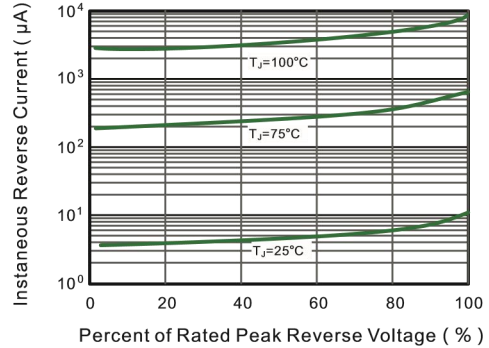


Fig.3 Typical Forward Characteristic

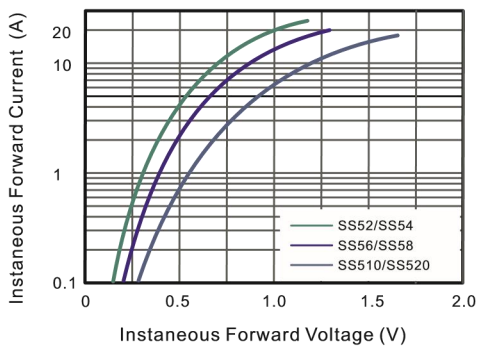


Fig.4 Typical Junction Capacitance

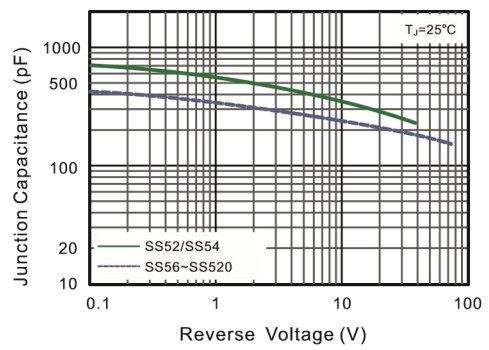


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

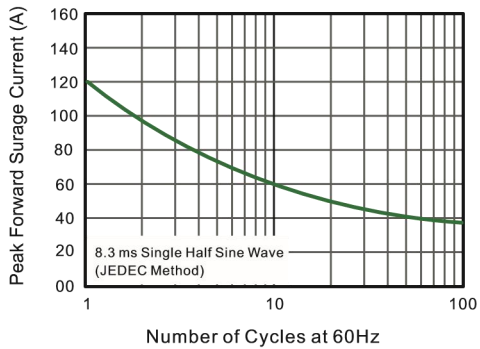
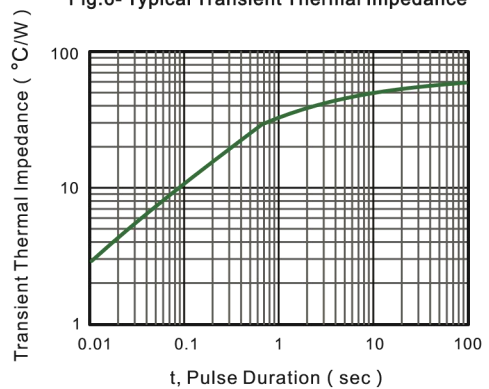


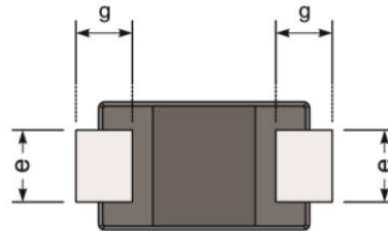
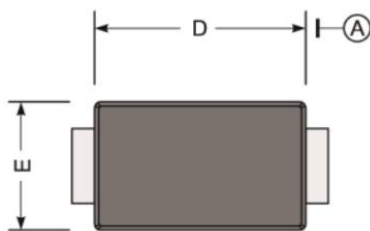
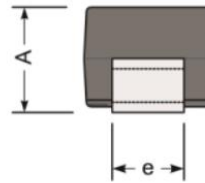
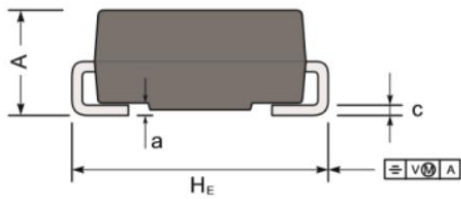
Fig.6 Typical Transient Thermal Impedance



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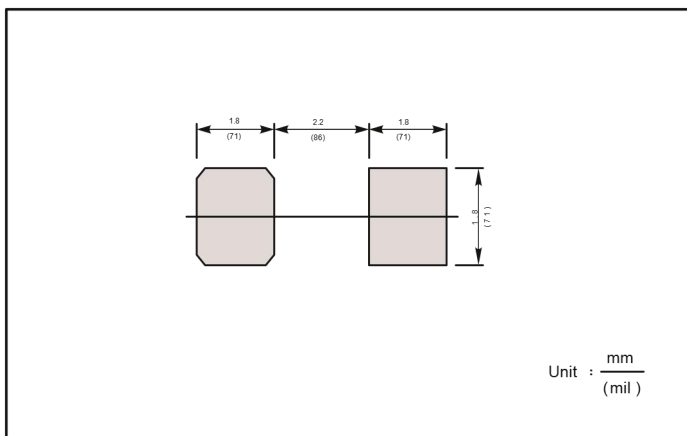


## SMA PACKAGE OUTLINE



UNIT		A	D	E	HE	c	e	g	a
mm	max	2.5	4.5	2.8	5.3	0.31	1.7	1.5	0.3
	min	1.9	3.9	2.3	4.7	0.15	1.3	0.76	
mil	max	98	181	110	208	12	67	59	12
	min	75	153	91	185	6	51	30	

### The recommended mounting pad size



Type number	Marking code
SS52	SS52
SS54	SS54
SS56	SS56
SS58	SS58
SS510	SS510
SS512	SS512
SS515	SS515
SS520	SS520

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