

# SS52A THRU SS520A

## Surface Mount Schottky Barrier Rectifiers

Reverse Voltage - 20 to 200 V

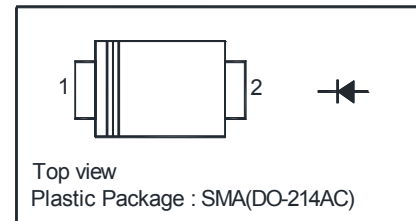
Forward Current - 5 A

### 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



### Mechanical Data

- **Case:** SMA (DO-214AC) molded plastic body
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any

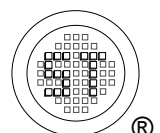
### Maximum Ratings and Electrical Characteristics

Ratings at  $T_a = 25^\circ\text{C}$  ambient temperature unless otherwise specified. Single phase, half wave 60 Hz, resistive or inductive load, For capacitive load current derate by 20 % .

Parameter	Symbol	SS52A	SS53A	SS54A	SS55A	SS56A	SS58A	SS510A	SS515A	SS520A	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5									A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	150									A
Maximum Instantaneous Forward Voltage at 5 A	$V_F$	0.55		0.75		0.85		0.9			V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$	$I_R$	0.5							0.3		mA
		50				20		5			
Typical Junction Capacitance <sup>1)</sup>	$C_J$	500			300					pF	
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	60									$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_J$	- 55 to + 150									$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150									$^\circ\text{C}$

<sup>1)</sup> Measured at 1 MHz and applied reverse voltage of 4.0 V D.C .

<sup>2)</sup> P.C.B mounted with 2" X 2" (5 X 5 cm) copper pad areas .



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## Electrical Characteristic Curves

Fig.1 Forward Current Derating Curve

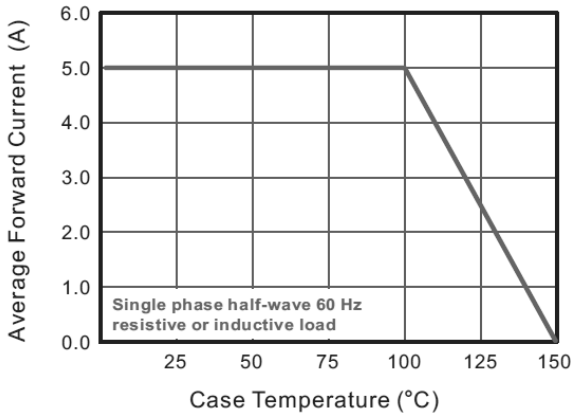


Fig.2 Typical Reverse Characteristics

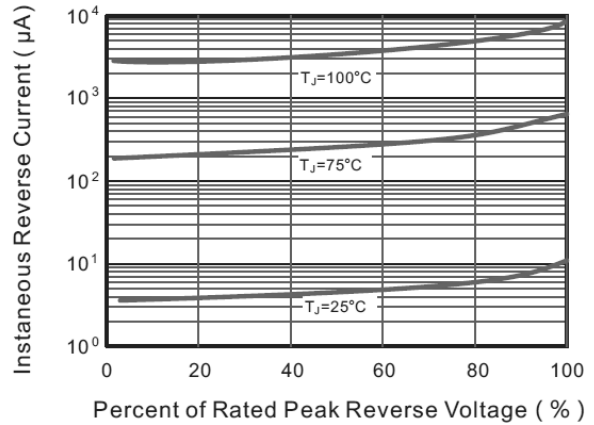


Fig.3 Typical Forward Characteristic

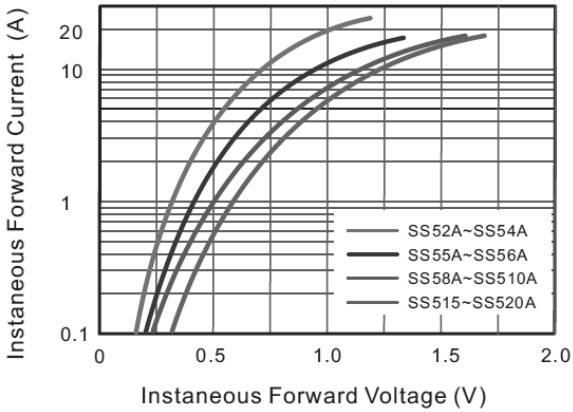


Fig.4 Typical Junction Capacitance

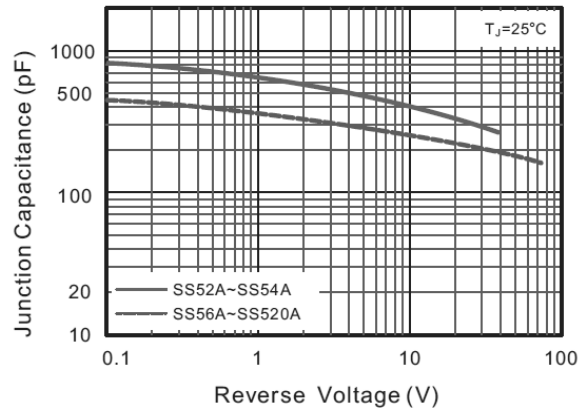


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

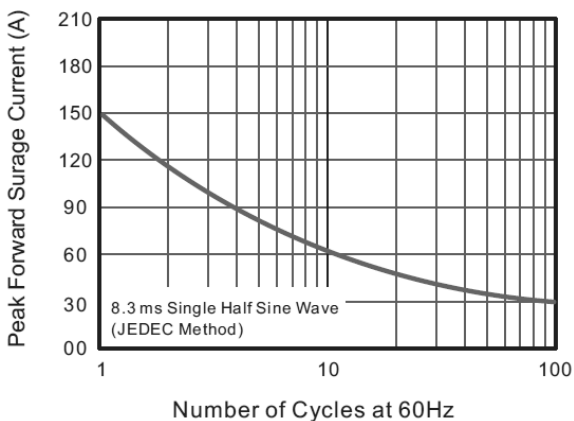
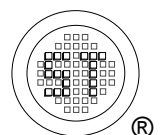
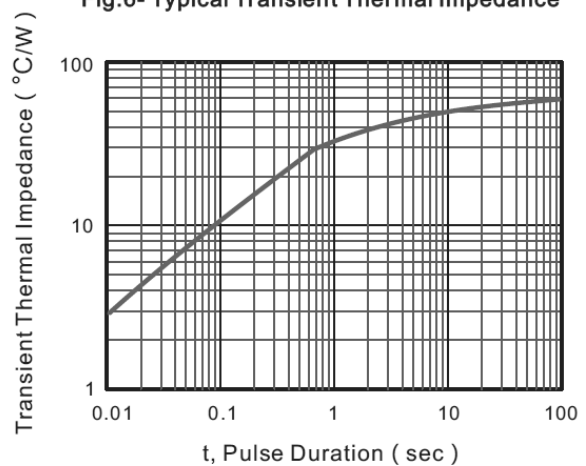


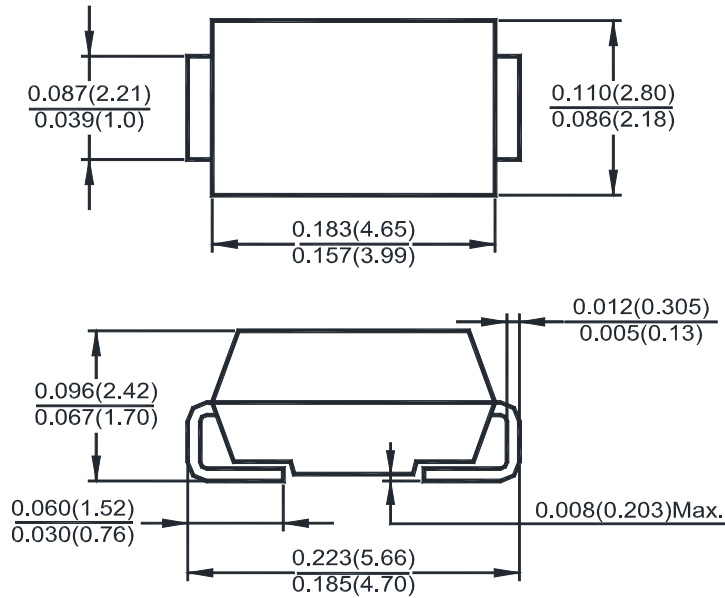
Fig.6- Typical Transient Thermal Impedance



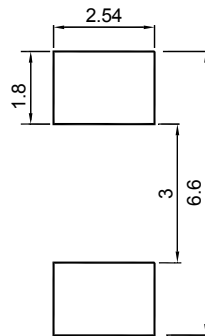
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Package Outline Dimensions in inches (millimeters)

SMA(DO-214AC)



## Recommended Soldering Footprint



## Marking information

" SS5\*\*A " = Part No.

Type	Marking	Type	Marking	Type	Marking	Type	Marking	Type	Marking
SS52A	SS52A	SS53A	SS53A	SS54A	SS54A	SS55A	SS55A	SS56A	SS56A
SS58A	SS58A	SS510A	SS510A	SS515A	SS515A	SS520A	SS520A		

" III " = Cathode line

Font type: Arial

