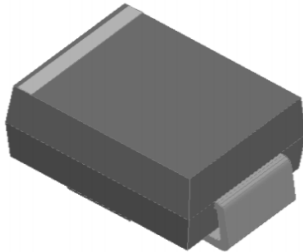


Reverse Voltage - 20 to 200 V
Forward Current - 5.0A



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

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	Symbols	SS52A	SS54A	SS56A	SS510A	SS515A	SS520A	Units
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	40	60	100	150	200	V
Maximum RMS voltage	V _{RMS}	14	28	42	70	105	140	V
Maximum DC Blocking Voltage	V _{DC}	20	40	60	100	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 5 A	V _F	0.55		0.70	0.85	0.90		V
Maximum DC Reverse Current T _a = 25°C at Rated DC Reverse Voltage T _a =100°C	I _R	0.1 50						mA
Typical Junction Capacitance ⁽¹⁾	C _j	300		180				pF
Typical Thermal Resistance ⁽²⁾	R _{θJA}	60						°C/W
Operating Junction Temperature Range	T _j	-55 ~ +150						°C
Storage Temperature Range	T _{stg}	-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.

Typical Characteristics

Fig.1 Forward Current Derating Curve

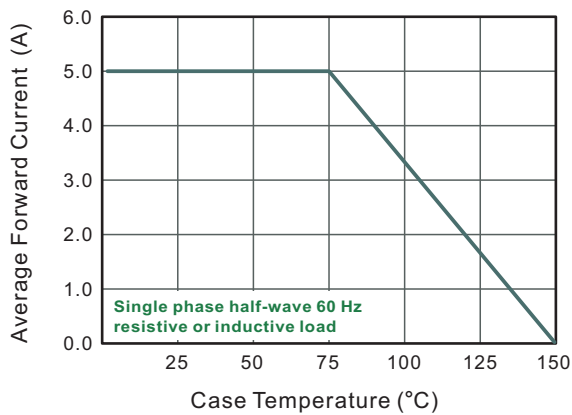


Fig.2 Typical Reverse Characteristics

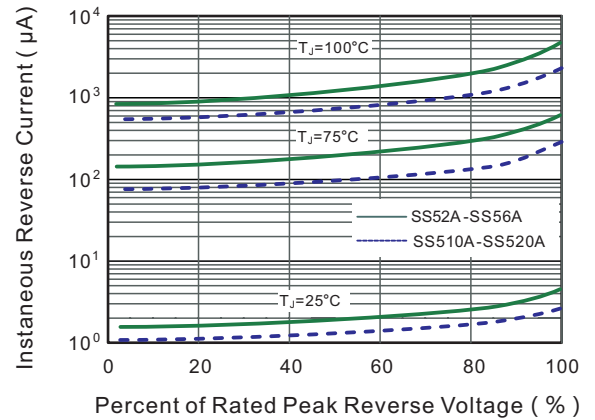


Fig.3 Typical Forward Characteristic

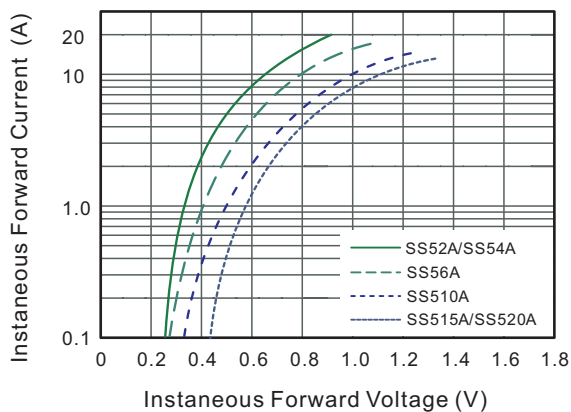


Fig.4 Typical Junction Capacitance

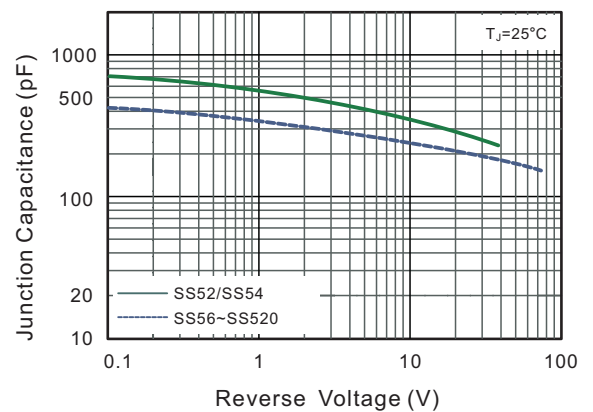


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

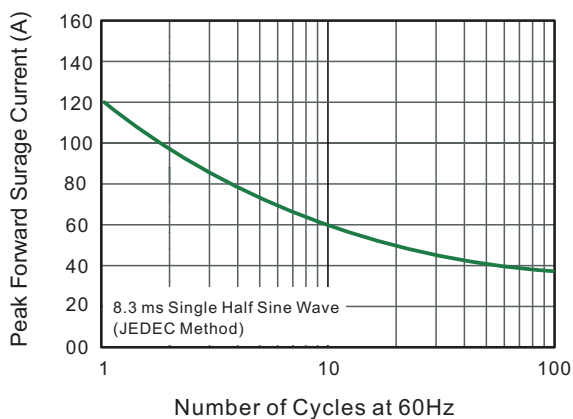
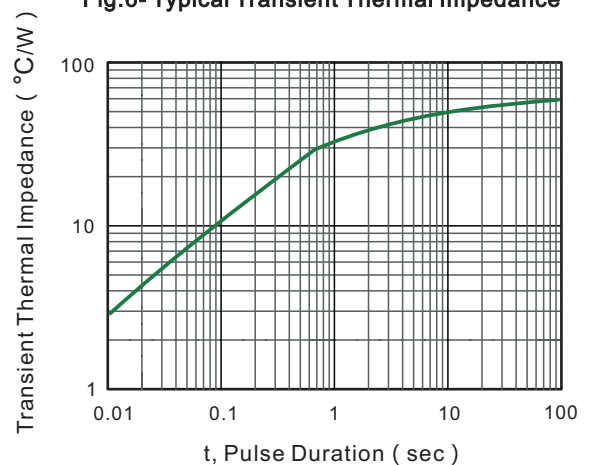


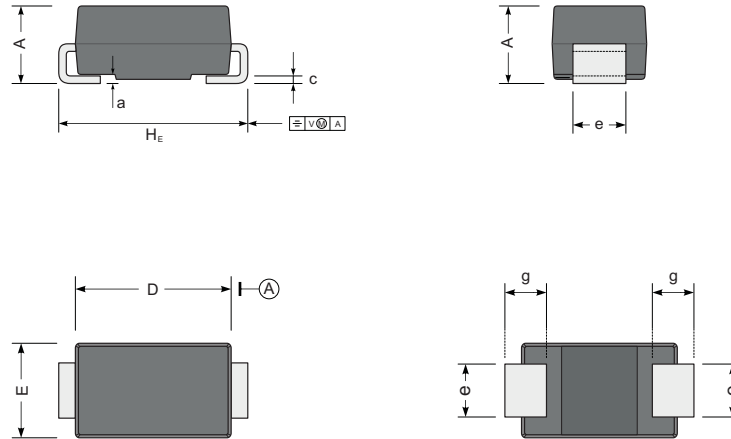
Fig.6- Typical Transient Thermal Impedance



PACKAGE OUTLINE

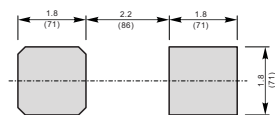
Plastic surface mounted package; 2 leads

SMA(DO-214AC)



UNIT		A	D	E	H _E	c	e	g	a
mm	max	2.4	4.5	2.7	5.2	0.31	1.6	1.5	0.3
	min	1.9	4.0	2.3	4.7	0.15	1.3	0.9	
mil	max	94	181	106	205	12	63	59	12
	min	75	157	91	185	6	51	35	

The recommended mounting pad size



Unit : $\frac{\text{mm}}{(\text{mil})}$

Marking

Type number	Marking code
SS52A	SS52
SS54A	SS54
SS56A	SS56
SS510A	SS510
SS515A	SS515
SS520A	SS520