

SS52-AT THRU SS520-AT

Surface Mount Schottky Barrier Rectifier

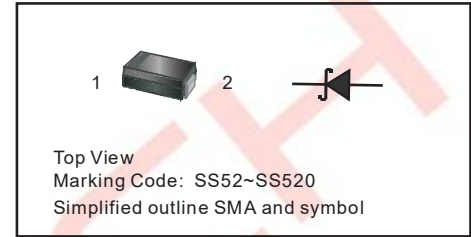
Reverse Voltage: 20 to 200 V Forward Current: 5.0A

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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	SS52-AT	SS54-AT	SS56-AT	SS58-AT	SS510-AT	SS512-AT	SS515-AT	SS520-AT	Units
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	0.58		0.70		0.85			V	
Maximum DC Reverse Current $T_a = 25^\circ C$ at Rated DC Reverse Voltage $T_a = 100^\circ C$	I_R	1.0 50								mA
Typical Junction Capacitance ⁽¹⁾	C_j	500		300			pF			
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	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 VD.C

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

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RATINGS AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

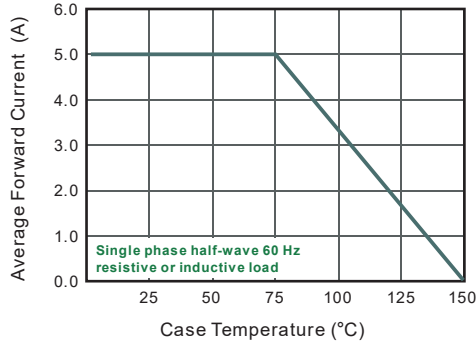


Fig.2 Typical Reverse Characteristics

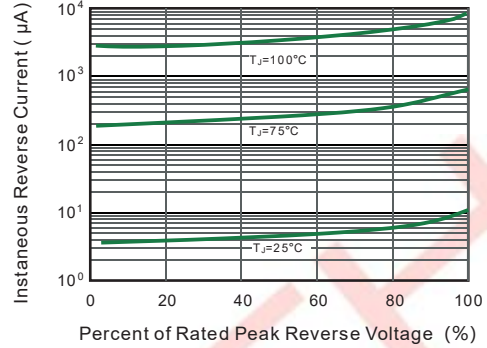


Fig.3 Typical Forward Characteristic

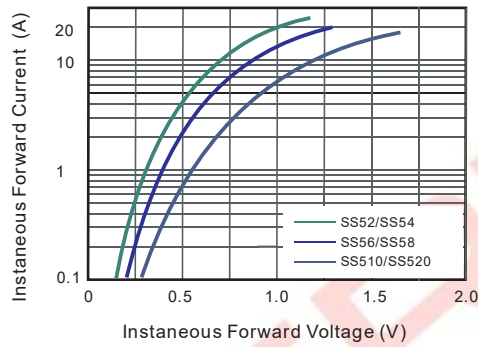


Fig.4 Typical Junction Capacitance

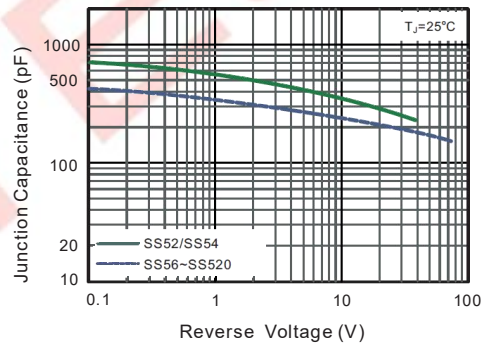


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

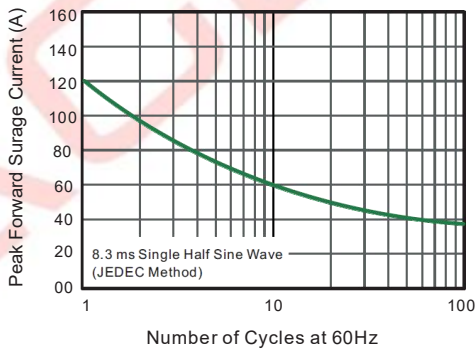
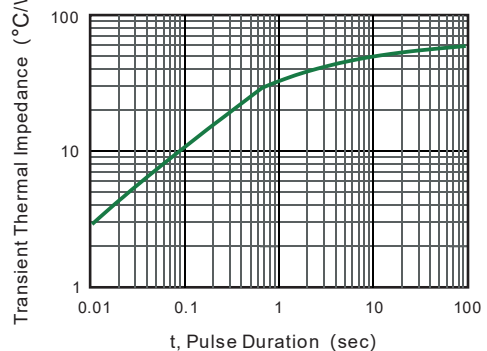


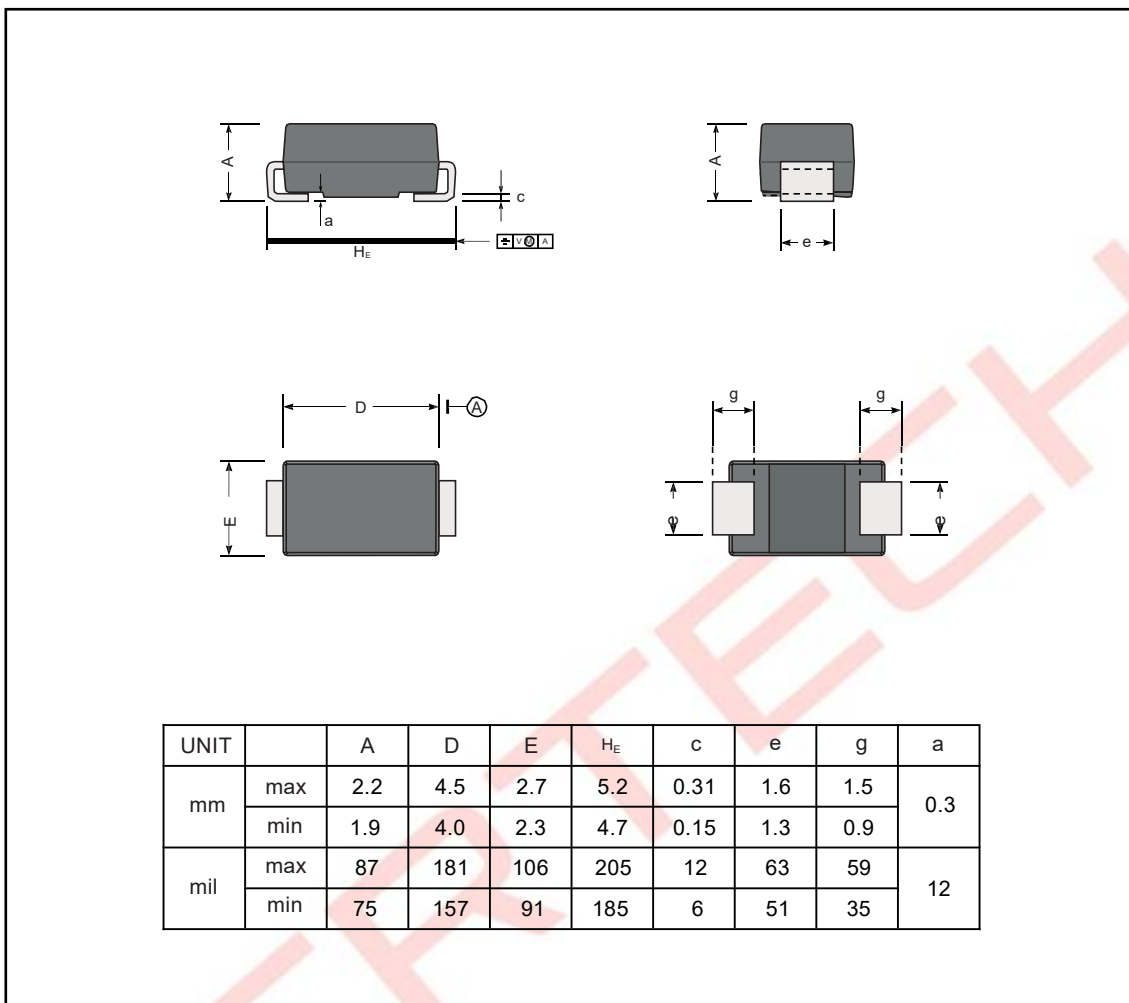
Fig.6- Typical Transient Thermal Impedance



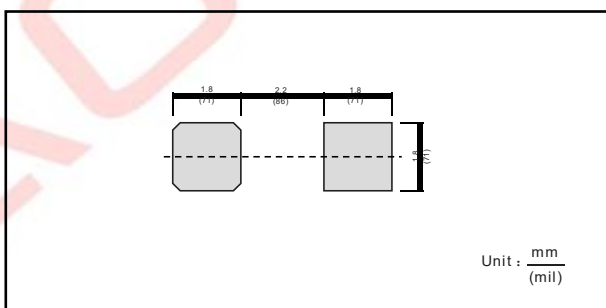
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PACKAGE OUTLINE

SMA



The recommended mounting pad size



Marking

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