

# SS22-AT thru SS220-AT

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage:20 to 200 V Forward Current:2.0A

### 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 mold plastic body
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Weight: Approximated 60 milligrams

Simplified outline SMA and symbol

### 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, derated by 20 %.

PARAMETER	SYMBOL	SS22	SS24	SS26	SS28	SS210	SS212	SS215	SS220	UNIT
		-AT	-AT	-AT	-AT	-AT	-AT	-AT	-AT	
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	$I_{F(AV)}$	2.0								A
Peak Forward Surge Current <sup>Note 1</sup>	$I_{FSM}$	50								A
Max Instantaneous Forward Voltage at 2A	$V_F$	0.55	0.70		0.85		0.90		V	
Maximum DC Reverse Current $T_A = 25^{\circ}C$ at Rated DC Reverse Voltage $T_A = 100^{\circ}C$	$I_R$	0.5			0.3				mA	
		5			3					
Typical Junction Capacitance <sup>Note 2</sup>	$C_J$	220		80					pF	
Typical Thermal Resistance <sup>Note 3</sup>	$R_{\theta JA}$	80								$^{\circ}C/W$
Operating Junction Temperature Range	$T_J$	-55 ~ +125								$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 ~ +150								$^{\circ}C$

Note: 1. 8.3ms Single half sine-wave superimposed on rated load (JEDEC method).

2. Measured at 1MHz and applied reverse voltage of 4 V D C.

3. 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

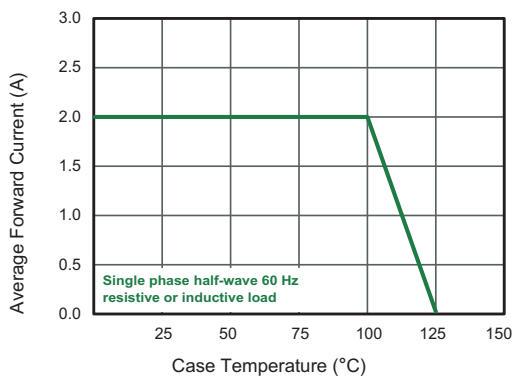


Fig.2 Typical Reverse Characteristics

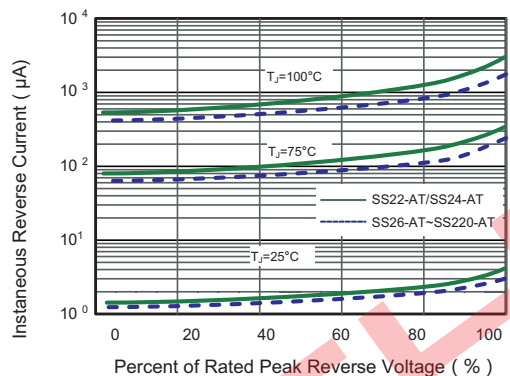


Fig.3 Typical Forward Characteristic

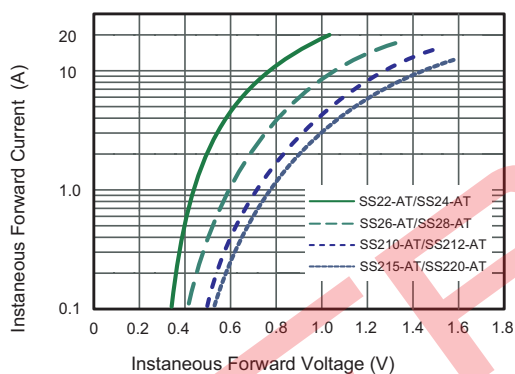


Fig.4 Typical Junction Capacitance

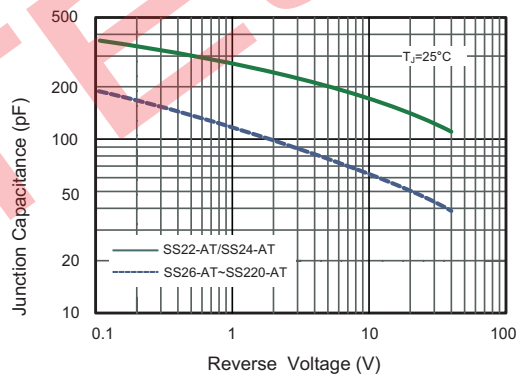


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

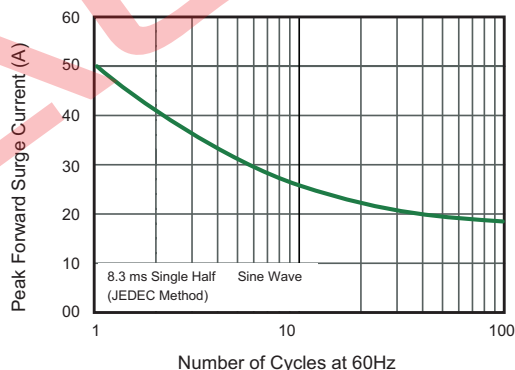
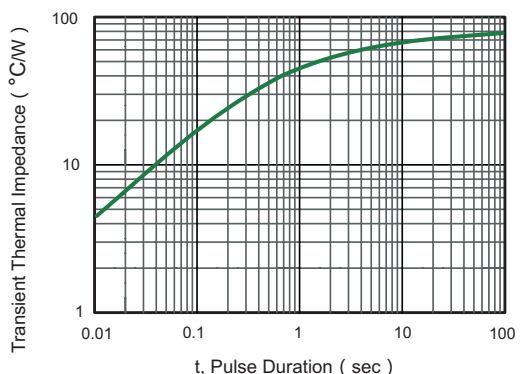


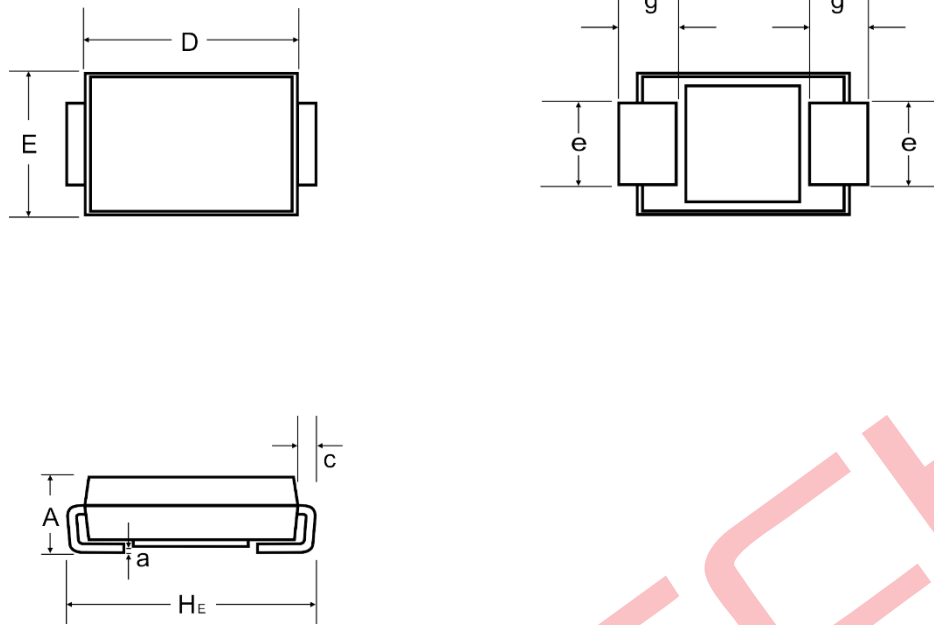
Fig.6 Typical Transient Thermal Impedance



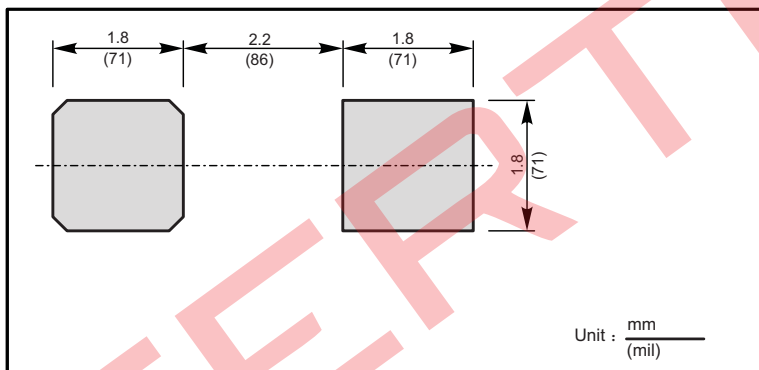
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## PACKAGE OUTLINE

SMA



### RECOMMEND MOUNTING PAD SIZE



### SMA Mechanical Data

UNIT		A	D	E	H <sub>E</sub>	a	c	e	g
mm	max	2.2	4.5	2.7	5.2	0.3	0.31	1.6	1.5
	min	1.9	4.0	2.3	4.7		0.15	1.3	0.9
mil	max	87	181	106	205	12	12	63	59
	min	75	157	91	185		6	51	35

### ORDERING INFORMATION

Device	Package	Shipping
SS22-AT thru SS220-AT	SMA	5,000/ Tape & Reel (13 inches)