SS52F THRU SS520F

Surface Mount Schottky Rectifiers

Reverse Voltage - 20 to 200V
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



Top View
Marking Code: SS52 — SS520
Simplified outline SMAF and symbol

MECHANICAL DATA

- Case: SMAF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight:27mg 0.00086oz

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	SS52F	SS54F	SS56F	SS58F	SS510F	SS512F	SS515F	SS520F	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}	150								A
Max Instantaneous Forward Voltage at 5 A	V_F	0.45	0.55	0.70		0.85				V
Maximum DC Reverse Current T_a = 25°C at Rated DC Reverse Voltage T_a =100°C	I_R	1.0 50								mA
Typical Junction Capacitance 1)	C_j	800		500						pF
Typical Thermal Resistance 2)	$R_{\theta JA}$	55								°C/W
Operating Junction Temperature Range	T_j	-55 ~ +125								°C
Storage Temperature Range	T_{stg}	-55 ~ +150								°C

1) Measured at 1MHz and applied reverse voltage of 4 V D.C.
2) P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.

http://www.trr-jx.com
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GUANGZHOU JUXING ELECTRONICS CO., LTD

Characteristic Curves (T =25 ℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

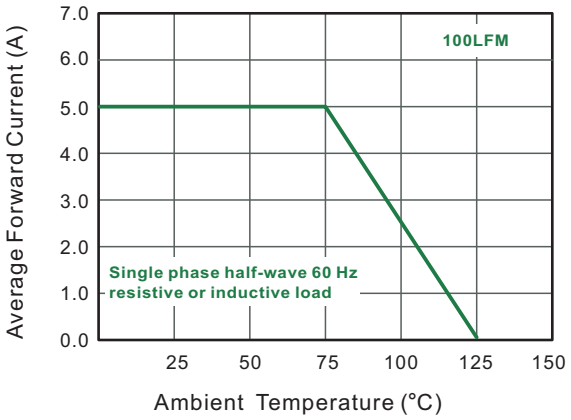


Fig.2 Typical Reverse Characteristics

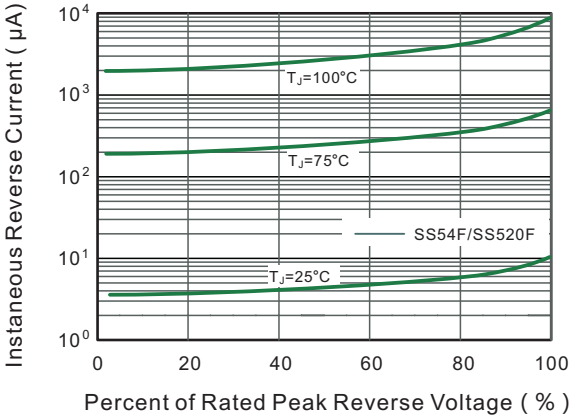


Fig.3 Typical Forward Characteristic

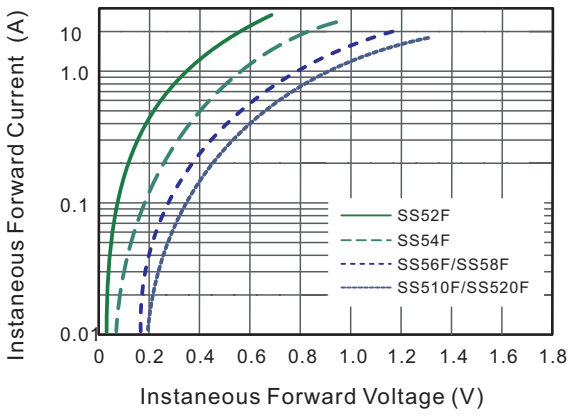


Fig.4 Typical Junction Capacitance

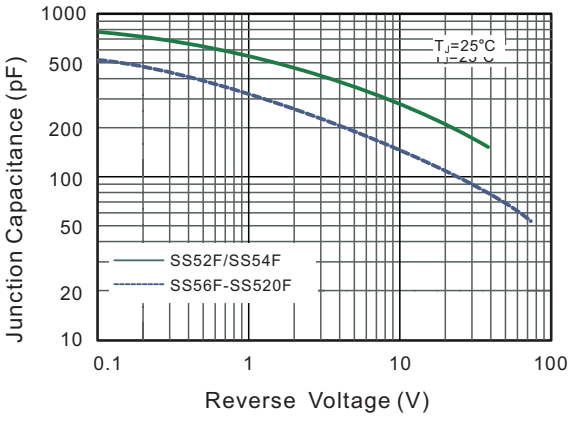


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

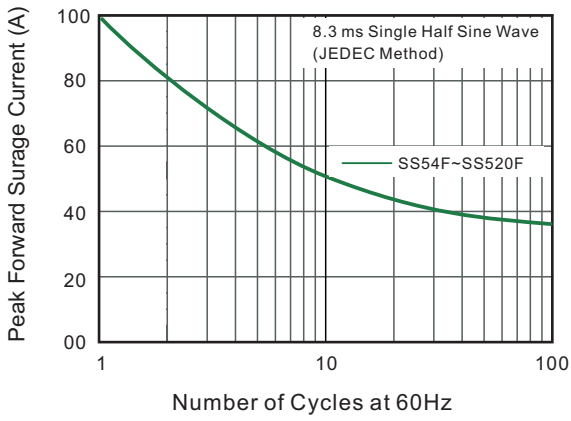
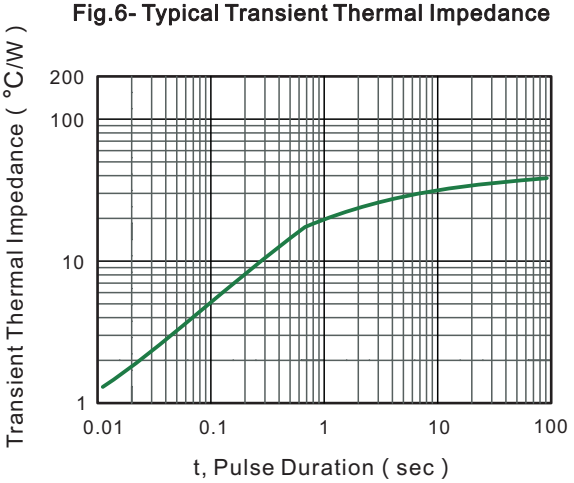
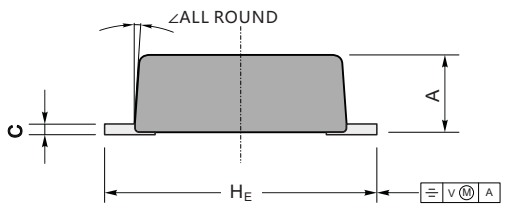


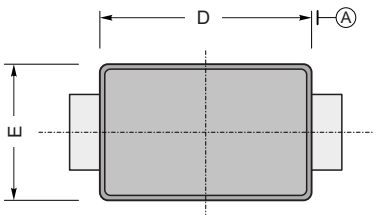
Fig.6- Typical Transient Thermal Impedance



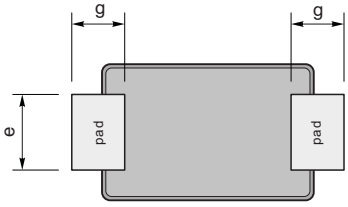
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads SMAF





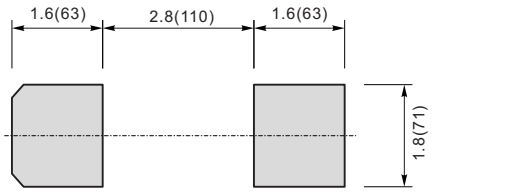
Top View



Bottom View

UNIT		A	C	D	E	e	g	H_E	∠
mm	max	1.2	0.23	3.7	2.7	1.6	1.3	4.9	7°
	min	0.9	0.18	3.3	2.4	1.3	1.0	4.4	
mil	max	47	9.1	146	106	63	51	193	
	min	35.4	7.1	130	94	51	39	173	

The recommended mounting pad size



Unit：mm(mil)

Marking

Type number	Marking code
SS52F	SS52
SS54F	SS54
SS56F	SS56
SS58F	SS58
SS510F	SS510
SS512F	SS512
SS515F	SS515
SS520F	SS520