

**Descriptions**

This is Surface Mount Schottky Barrier Rectifier, Reverse Voltage: 20 to 200V, Forward Current: 5.0A, SMAF thin package.

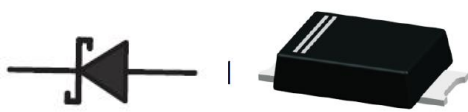
**Features**

- Low power loss
- high efficiency
- High forward surge current capability
- For use in low voltage
- high frequency inverters
- and polarity protection applications
- For surface mounted applications
- Halogen free product

**Applications**

General purpose.

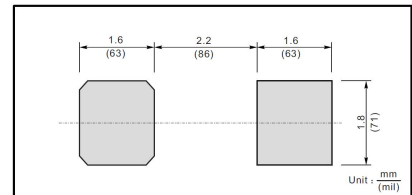
**Equivalent Circuit & Pinning**



2

PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



**Marking**

See Marking Instructions.

**Absolute Maximum Ratings(Ta=25°C)**

Parameter	Symbol	Rating								Unit
		SS52F	SS54F	SS56F	SS58F	SS510F	SS512F	SS515F	SS520F	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V <sub>RMS</sub>	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	5.0								A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	150								A
Typical Junction Capacitance <sup>1)</sup>	C <sub>j</sub>	500		300						pF
Typical Thermal Resistance <sup>2)</sup>	R <sub>θJA</sub>	60								°C/W
Operating Junction Temperature Range	T <sub>j</sub>	-55~+150								°C
Storage Temperature Range	T <sub>stg</sub>	-55~+150								°C

Note:

- 1 ) Measured at 1MHz 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.

**Electrical Characteristics(Ta=25°C)**

Parameter	Symbol	Test condition	Rating								Unit
			SS52F	SS54F	SS56F	SS58F	SS510F	SS512F	SS515F	SS520F	
Max Instantaneous Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =5.0A	0.55		0.70		0.85			V	
Maximum DC Reverse Current at Rated DC Reverse Voltage	I <sub>R</sub>	T <sub>a</sub> =25°C	1.0								mA
		T <sub>a</sub> =100°C	50								

Electrical Characteristic Curve

Fig.1 Forward Current Derating Curve

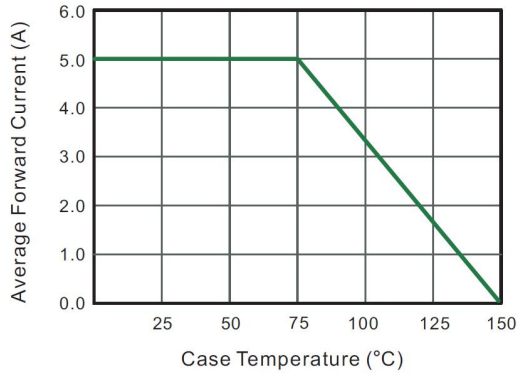


Fig.2 Typical Reverse Characteristics

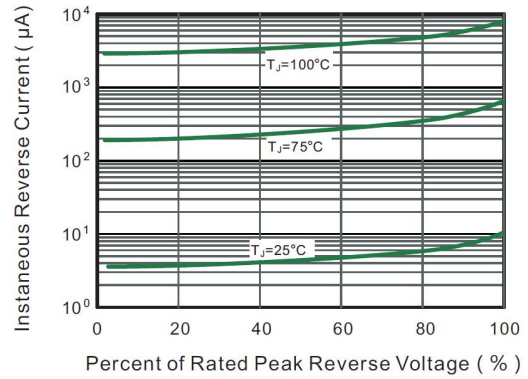


Fig.3 Typical Forward Characteristic

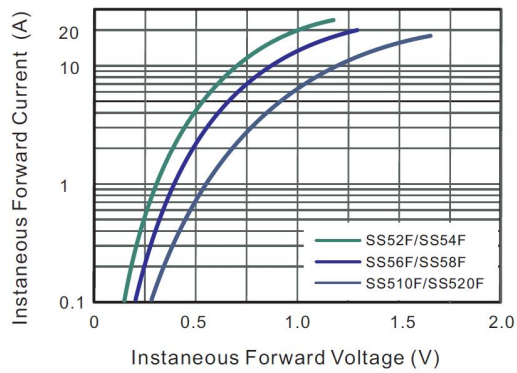


Fig.4 Typical Junction Capacitance

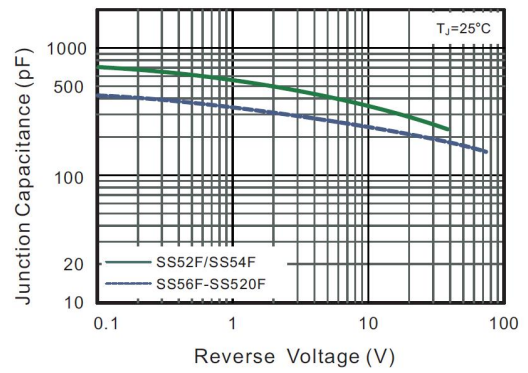


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

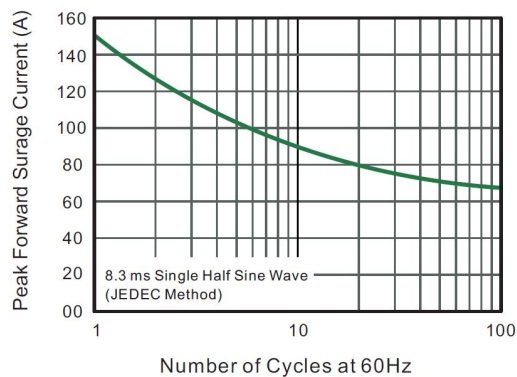
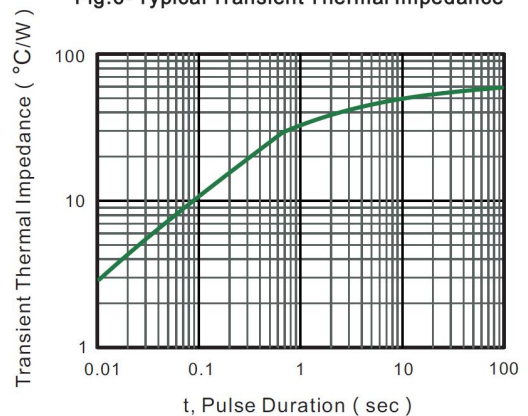
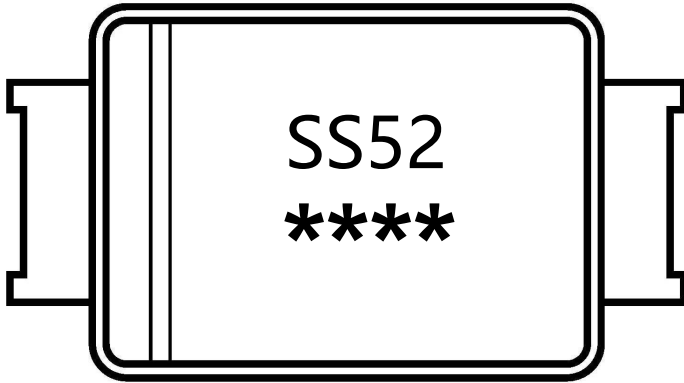


Fig.6 Typical Transient Thermal Impedance



**Marking Instructions**



**Marking**

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

Note:

SS52: Product Type Code

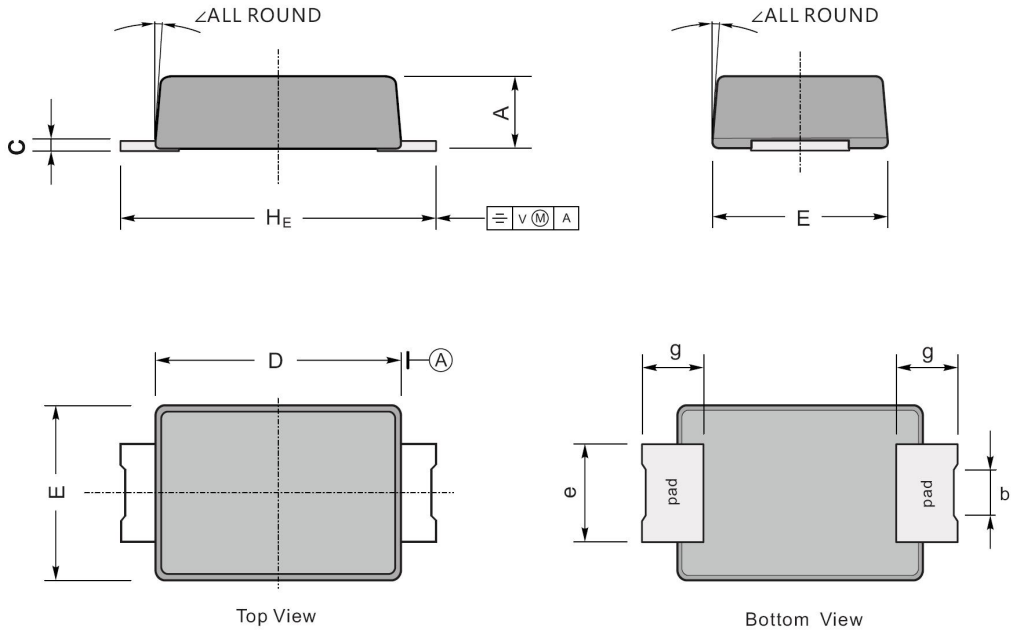
\*\*\*\*: Lot No. Code, The 1st \* means:YM Code, The last 3 \* means:little Lot No Code

**Packaging SPEC**

REEL

Package Type	Units					Dimension (unit: mm <sup>3</sup> )		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SMAF	3000	5	15000	5	75000	7" ×11	185X180X105	390X385X205

Package Outline Dimensions



UNIT		A	C	D	E	e	g	H <sub>E</sub>	b	∠
mm	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	1.05	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	0.65	
mil	max	47	7.9	146	106	63	47	193	41	
	min	35	4.7	130	94	51	31	173	26	