

Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 20 to 200 V

Forward Current - 5 A

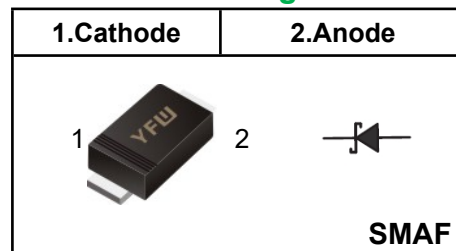
FEATURES

- ♦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
- ♦Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ♦Case: SMAF
- ♦Terminals: Solderable per MIL-STD-750, Method 2026
- ♦Approx. Weight: 27mg / 0.00095oz

Pinning



Marking Code

SS52F	YFW SS52
SS54F	YFW SS54
SS56F	YFW SS56
SS58F	YFW SS58
SS510F	YFW SS510
SS512F	YFW SS512
SS515F	YFW SS515
SS520F	YFW SS520

Absolute Maximum Ratings and Electrical characteristics

Ratings at 25 ° ambient temperature unless otherwise specified.Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

For capacitive load, derate by 25 %										
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}	175				150				A
Maximum Instantaneous Forward Voltage at 5 A	V_F	0.45	0.55	0.70		0.85				V
Maximum Instantaneous Reverse Current at Rated DC Reverse Voltage $T_A = 25^{\circ}C$ $T_A = 100^{\circ}C$	I_R	1.0 50								mA
Typical Junction Capacitance ⁽¹⁾	C_j	700		500						pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	50								°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.

Fig.1 Forward Current Derating Curve

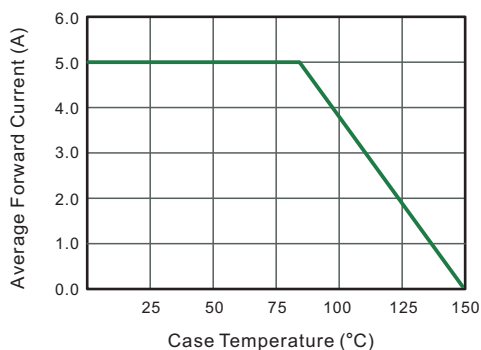


Fig.2 Typical Reverse Characteristics

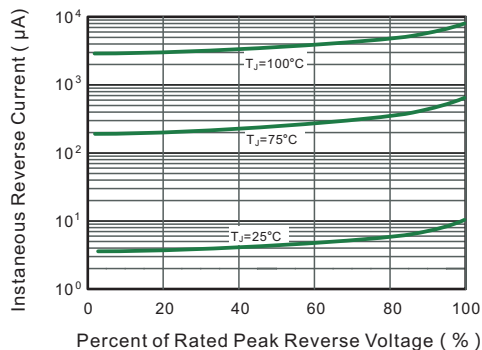


Fig.3 Typical Forward Characteristic

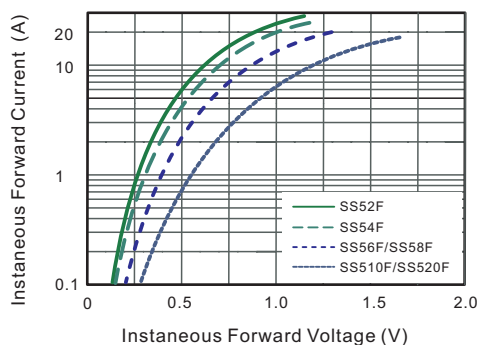


Fig.4 Typical Junction Capacitance

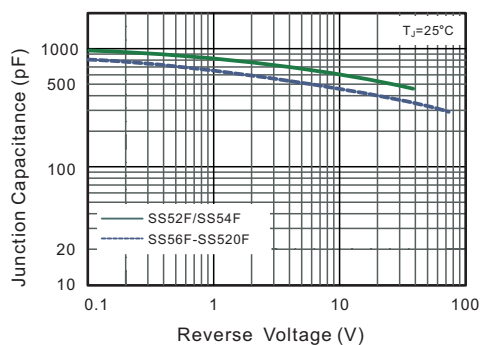


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

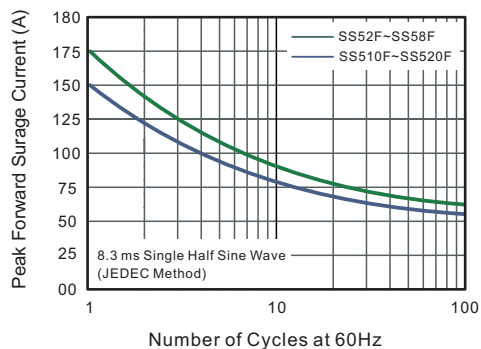
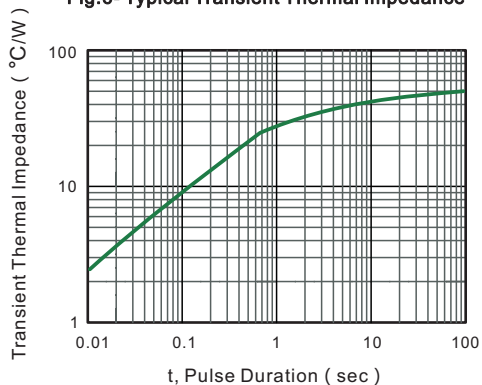


Fig.6- Typical Transient Thermal Impedance



Marking Diagram



Ordering information

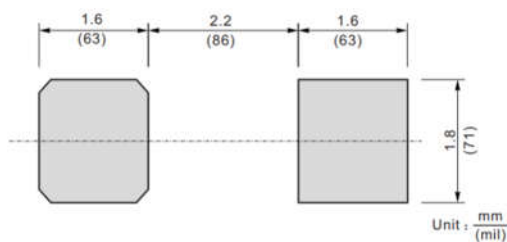
Package	Packing Description	Packing Quantity
SMAF	Tape/Reel, 7" reel	3000PCS/Reel 90000PCS/Carton

Package Dimensions

SMAF

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.1	35	43
C	0.12	0.20	4.7	7.9
D	3.3	3.7	130	146
E	2.4	2.7	94	106
e	1.3	1.6	51	63
g	0.8	1.2	31	47
HE	4.4	4.9	173	193
∠	7°			

The recommended mounting pad size



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