

## 5 Ampere Surface Mount Schottky Barrier Rectifier



## SS52F-SS520F

## Features:

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- Fast switching for high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters

SMAF



1. Cathode  
2. Anode

## Absolute Maximum Ratings\* (TA=25°C Unless otherwise noted)

Parameter	Symbol	SS 52F	SS 54F	SS 56F	SS 58F	SS 510F	SS 512F	SS 515F	SS 520F	Unit
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								A
Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	$I_{FSM}$	100								A
Maximum Forward Voltage @ 5A	$V_F$	0.55		0.70		0.85		0.95		V
Maximum DC Reverse Current @ rated $V_R$	$T_A = 25^\circ\text{C}$	0.5								mA
	$T_A = 125^\circ\text{C}$	20		10						
Typical Junction Capacitance (note1)	$C_j$	160								pF
Typical Thermal Resistance (note2)	$R_{\theta JA}$	40								$^\circ\text{C}/\text{W}$
Power Dissipation	PD	2.27								W
Operating Junction Temperature and Storage Temperature	$T_J, T_{stg}$	-55~+150								$^\circ\text{C}$

Note: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.

Typical Characteristics

Fig.1 Forward Current Derating Curve

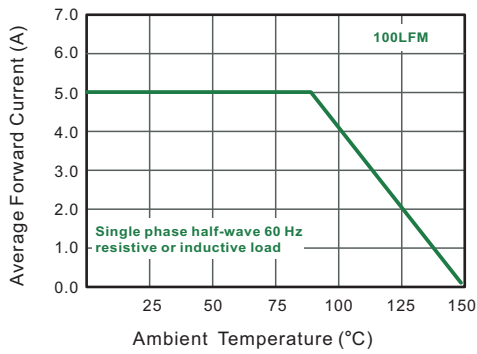


Fig.2 Typical Reverse Characteristics

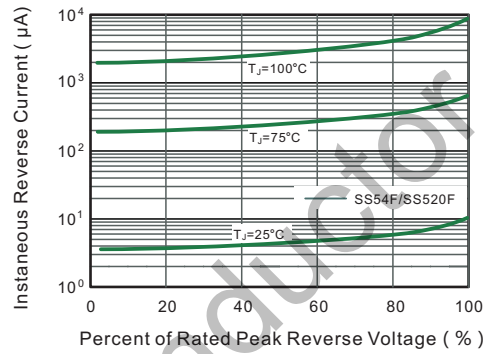


Fig.3 Typical Forward Characteristic

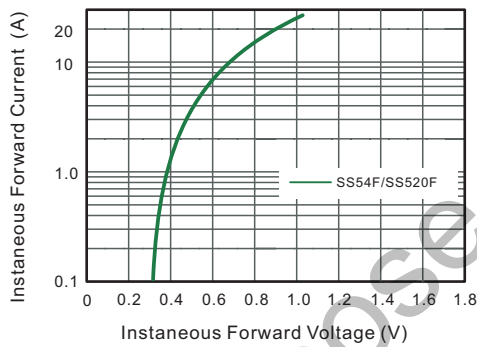


Fig.4 Typical Junction Capacitance

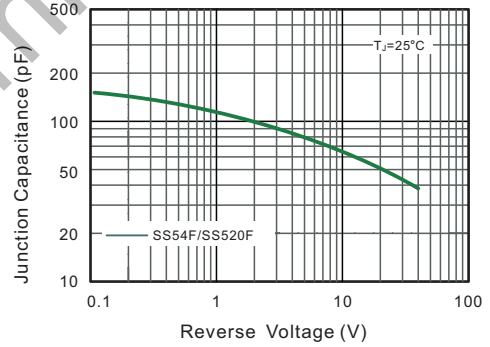


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

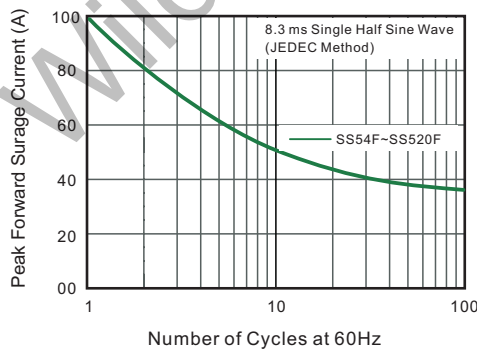
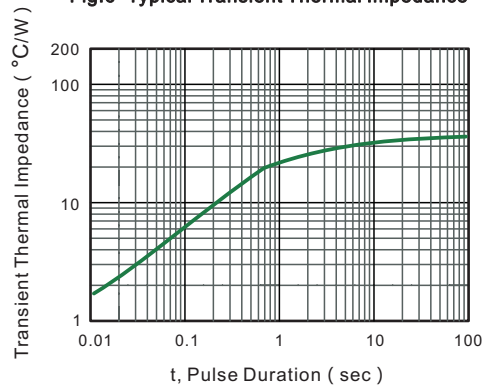
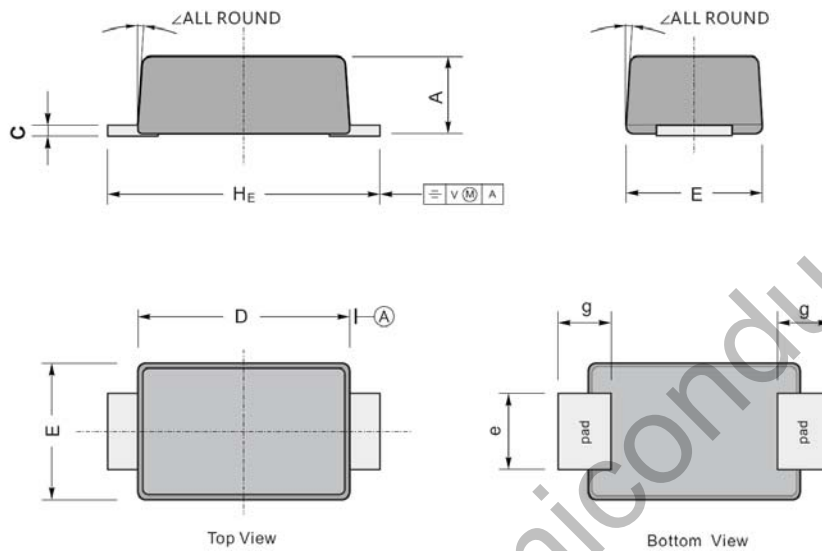


Fig.6- Typical Transient Thermal Impedance



**Package Dimension****SMAF**

Unit: mm



DIM	MIN.	TYP.	MAX.
A	1.1	-	1.3
C	0.18	-	0.23
D	3.3	-	3.7
E	2.4	-	2.7
e	1.3	-	1.6
g	1.0	-	1.3
H <sub>E</sub>	4.4	-	4.9
∠	-	7°	-

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