

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 Current8.3 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°C	I _R	0.5								mA
	T _A = 125°C		20		10						
Typical Junction Capacitance (note1)		C _j	160								pF
Typical Thermal Resistance (note2)		R _{θJA}	40								°C/W
Power Dissipation		PD	2.27								W
Operating Junction Temperature and Storage Temperature		T _J , T _{stg}	-55~+150								°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

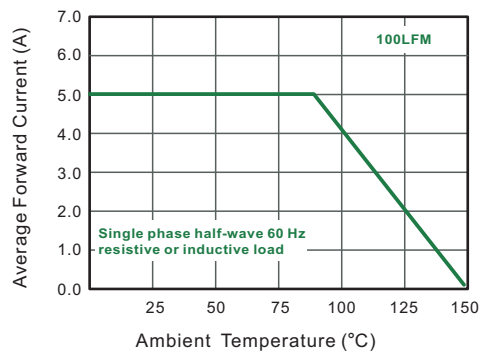


Fig.2 Typical Reverse Characteristics

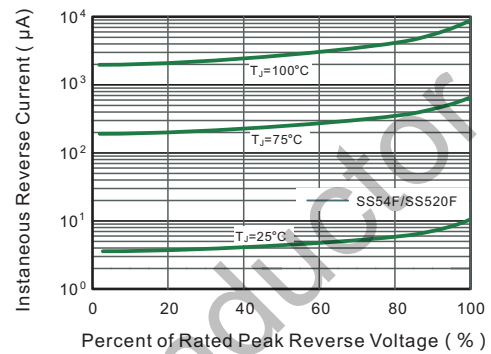


Fig.3 Typical Forward Characteristic

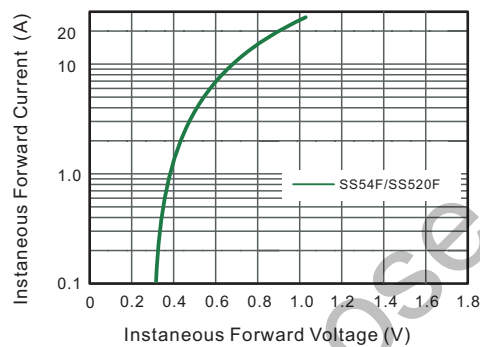


Fig.4 Typical Junction Capacitance

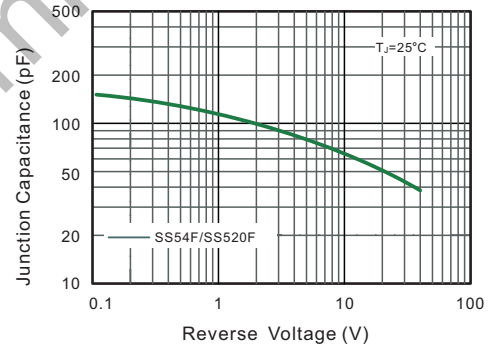


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

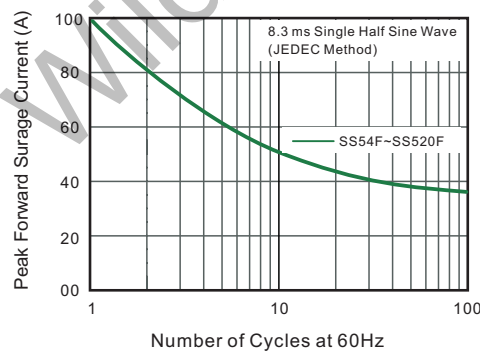
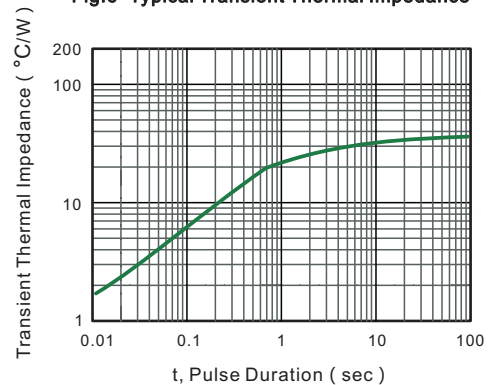
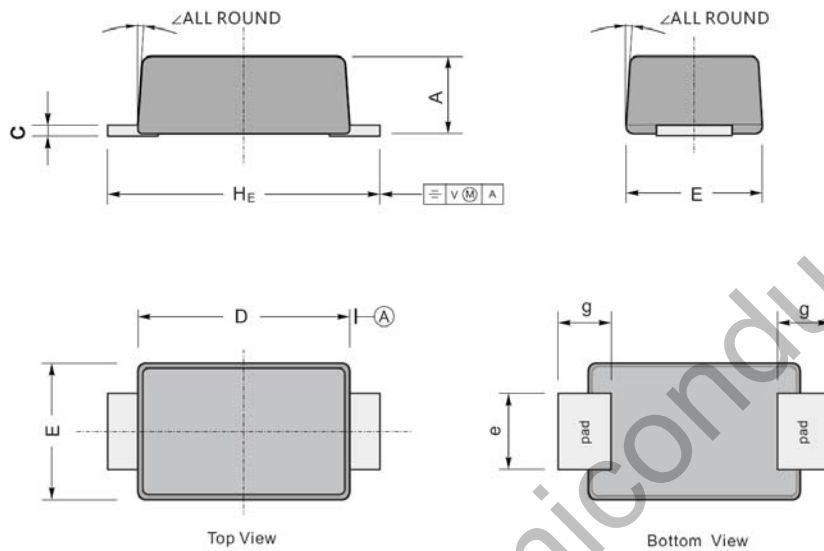


Fig.6- Typical Transient Thermal Impedance



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 _E	4.4	-	4.9
∠	-	7°	-