

**Surface Mount Schottky Barrier Rectifier**

**Reverse Voltage - 40V**

**Forward Current - 5.0A**

**Features**

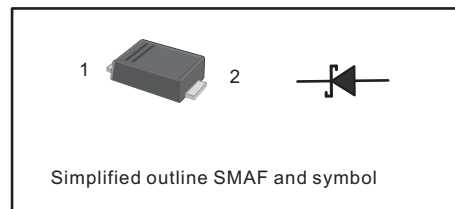
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

**MECHANICAL DATA**

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

**PINNING**

PIN	DESCRIPTION
1	Cathode
2	Anode



**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	SS54LF	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Maximum RMS voltage	$V_{RMS}$	28	V
Maximum DC Blocking Voltage	$V_{DC}$	40	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	$V_F$	0.5	V
Maximum DC Reverse Current $T_a = 25^{\circ}C$ at Rated DC Reverse Voltage $T_a = 100^{\circ}C$	$I_R$	1 50	mA
Typical Junction Capacitance <sup>1)</sup>	$C_j$	700	pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	50	$^{\circ}C/W$
Operating Junction Temperature Range	$T_j$	-55 ~ +150	$^{\circ}C$
Storage Temperature Range	$T_{stg}$	-55 ~ +150	$^{\circ}C$

( 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

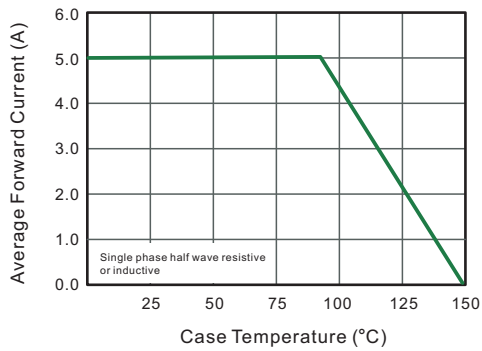


Fig.2 Typical Reverse Characteristics

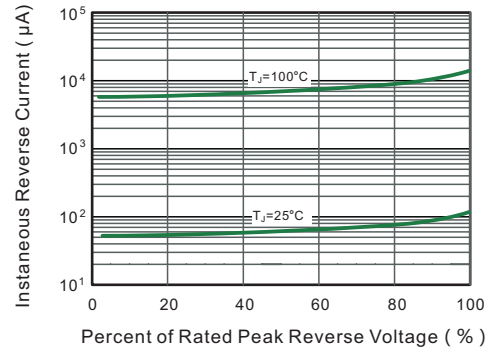


Fig.3 Typical Forward Characteristic

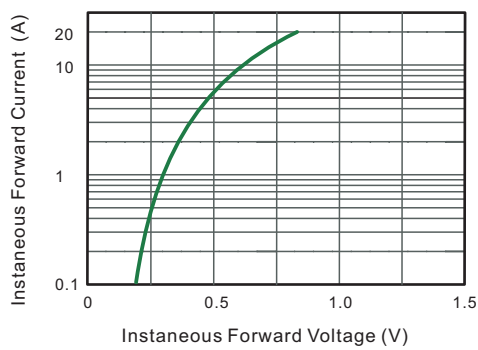


Fig.4 Typical Junction Capacitance

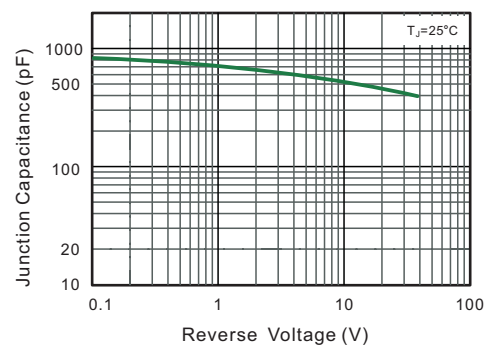


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

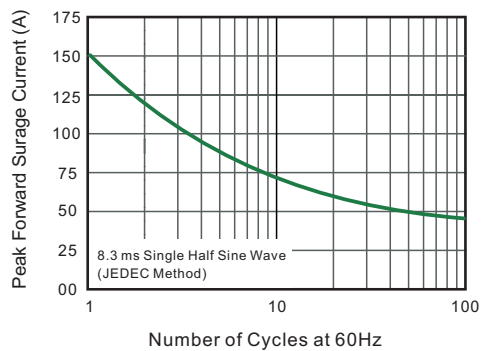
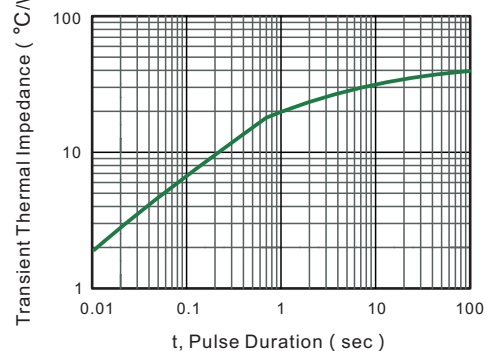


Fig.6 Typical Transient Thermal Impedance

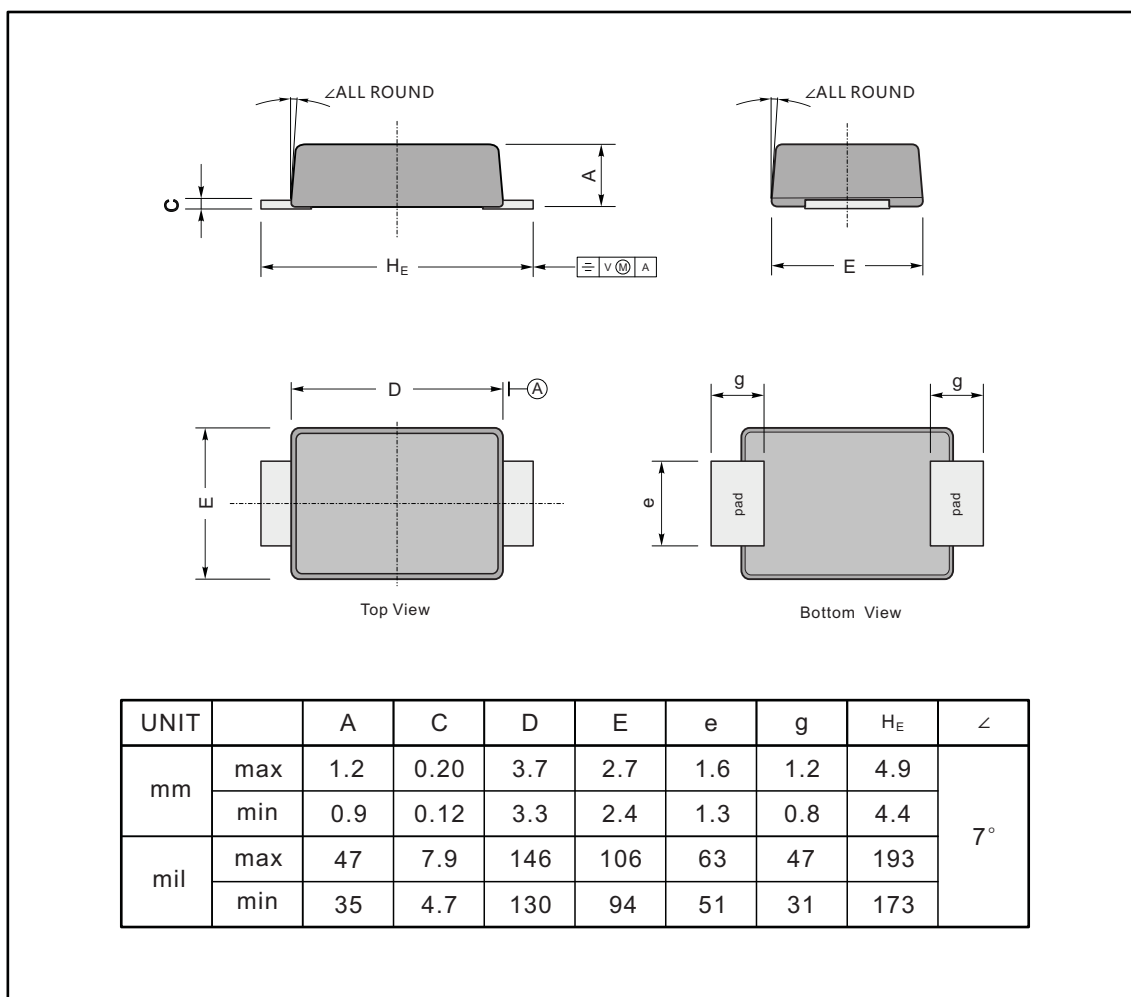




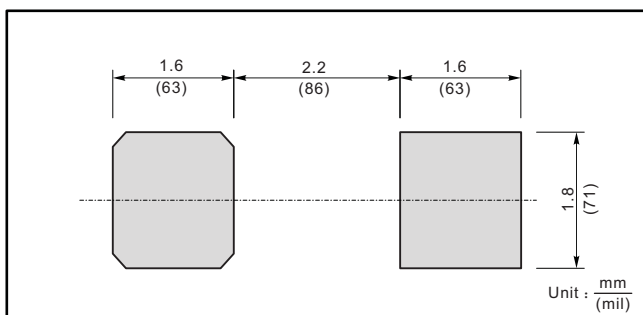
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMAF



### The recommended mounting pad size



### Marking

Type number	Marking code
SS54LF	SS54L