SSL54F THRU SSL56F

Surface Mount Schottky Barrier Rectifier
Reverse Voltage - 20 to 60V
Forward Current - 5.0A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Simplified outline SMAF and symbol

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 0.00086oz

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	SSL54F	SSL56F	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	60	V
Maximum RMS voltage	V_{RMS}	28	42	V
Maximum DC Blocking Voltage	V_{DC}	40	60	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	0.45	0.55	V
Maximum DC Reverse Current at Rated DC Reverse Voltage T_a = 25°C T_a =100°C	I_R	1.0 50		mA
Typical Junction Capacitance 1)	C_j	800	500	pF
Typical Thermal Resistance 2)	$R_{\theta JA}$	55		°C/W
Operating Junction Temperature Range	T_j	-55 ~ +125		°C
Storage Temperature Range	T_{stg}	-55 ~ +150		°C

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.

Fig.1 Forward Current Derating Curve

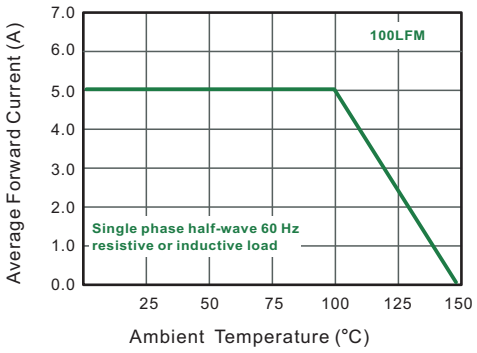


Fig.2 Typical Reverse Characteristics

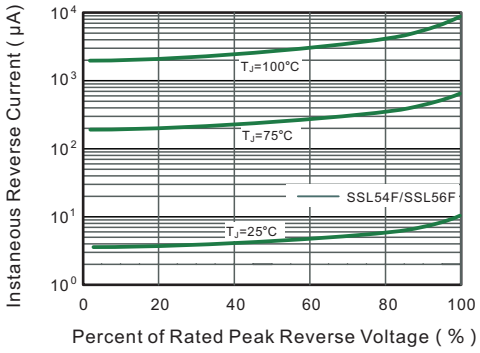


Fig.3 Typical Forward Characteristic

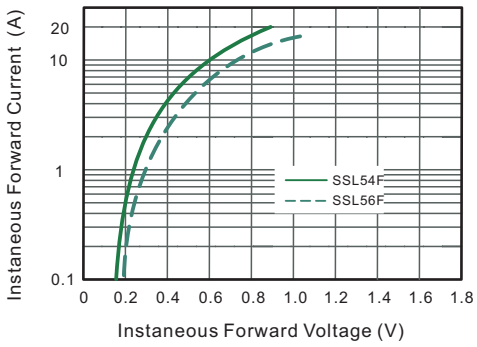


Fig.4 Typical Junction Capacitance

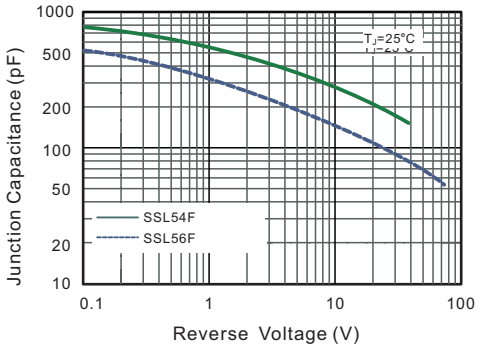


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

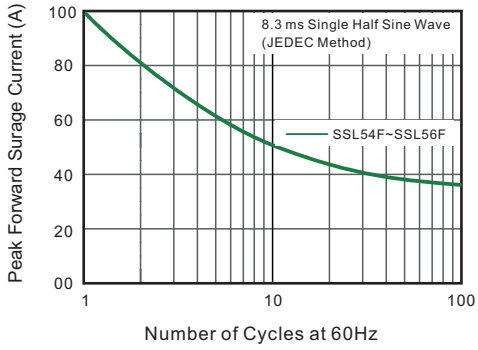
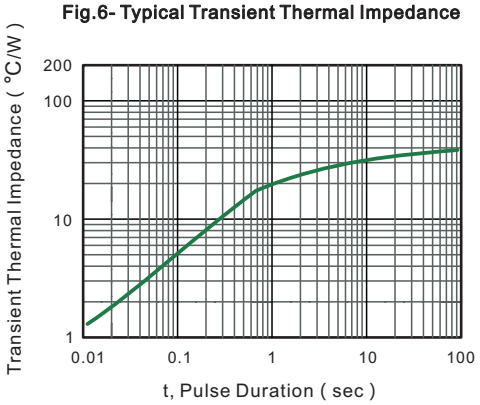


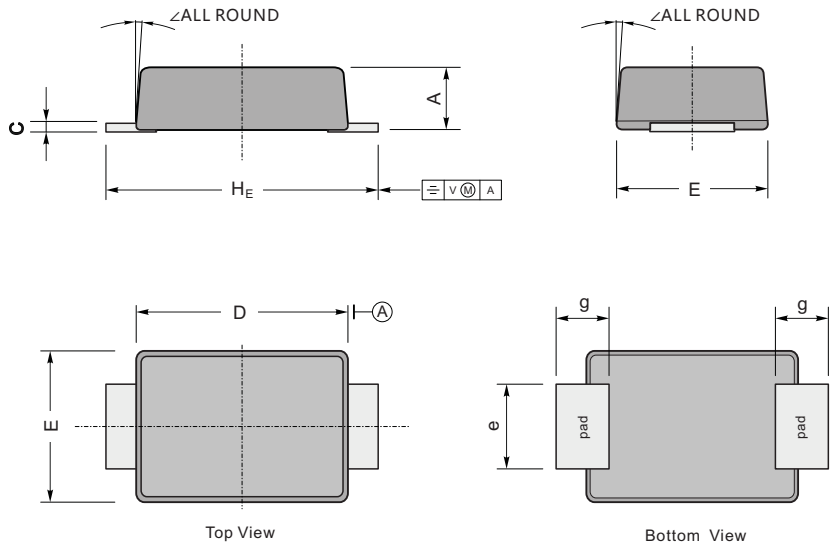
Fig.6- Typical Transient Thermal Impedance



PACKAGE OUTLINE

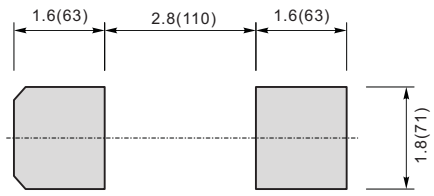
Plastic surface mounted package; 2 leads

SMAF



UNIT		A	C	D	E	e	g	H_E	∠
mm	max	1.1	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	43	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	

The recommended mounting pad size



Unit: mm(mil)

Marking

Type number	Marking code
SSL54F	SSL54
SSL56F	SSL56