YFW® 佑风微

SSL54BF SMBF

Surface Mount Schottky Barrier Rectifier
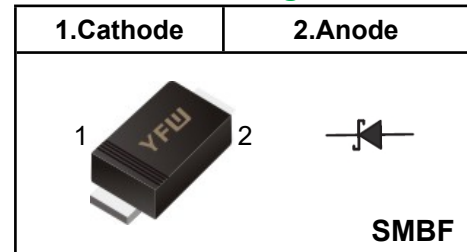
Reverse Voltage - 40 V

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: SMBF

♦Terminals: Solderable per MIL-STD-750, Method 2026

♦Approx. Weight: 57mg / 0.002oz

Pinning

1.Cathode	2.Anode

SMBF

Marking Code

SSL54BF	SL54B

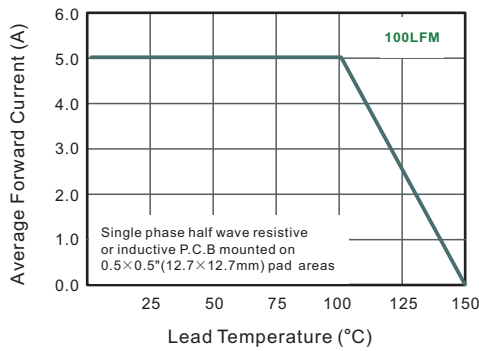**Absolute Maximum Ratings and Electrical characteristics**
Ratings at 25 ° ambient temperature unless otherwise specified.Single phase, half wave, 60Hz resistive or inductive load,
for capacitive load, derate by 20 %

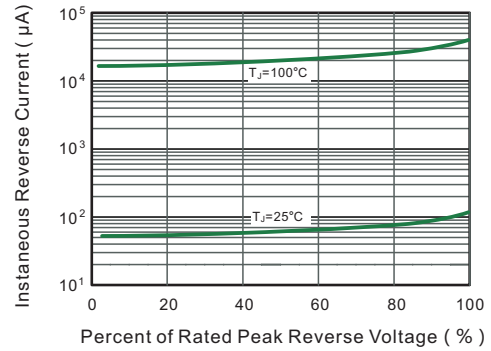| Parameter	Symbols	SSL54BF	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method)	I_{FSM}	130	A
Maximum Instantaneous Forward Voltage at 5 A	V_F	0.45	V
Maximum Instantaneous Reverse Current T_A = 25°C at Rated DC Reverse Voltage T_A = 100°C	I_R	0.3 40	mA
Typical Junction Capacitance [1]	C_j	280	pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	45	°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
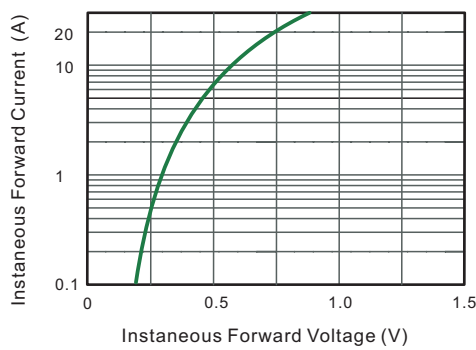（2）P.C.B. mounted with 2.0" X2.0" (5 X 5 cm) copper pad areas.
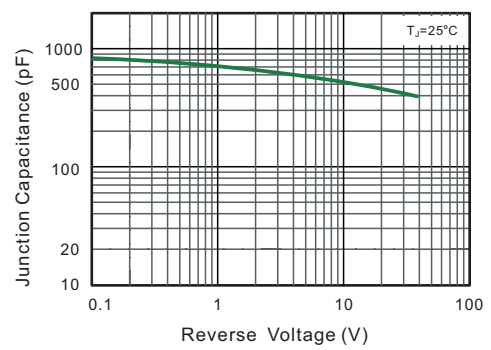
Fig.1 Forward Current Derating Curve

Average Forward Current (A)

100LFM

Single phase half wave resistive
or inductive P.C.B mounted on
0.5×0.5"(12.7×12.7mm) pad areas

Lead Temperature (℃)

Fig.2 Typical Reverse Characteristics

Instaneous Reverse Current (μA)

T_J=100℃

T_J=25℃

Percent of Rated Peak Reverse Voltage (%)

Fig.3 Typical Forward Characteristic

Instaneous Forward Current (A)

Instaneous Forward Voltage (V)

Fig.4 Typical Junction Capacitance

Junction Capacitance (pF)

T_J=25℃

Reverse Voltage (V)

Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

Peak Forward Surage Current (A)

8.3 ms Single Half Sine Wave
(JEDEC Method)

Number of Cycles at 60Hz
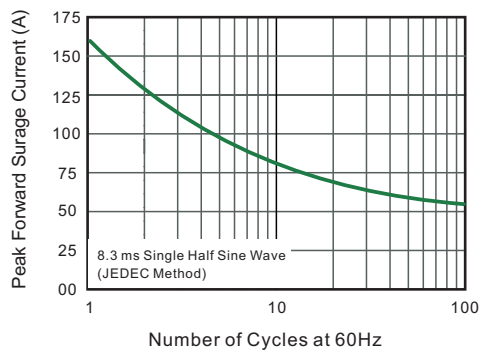
Fig.6- Typical Transient Thermal Impedance

Transient Thermal Impedance (℃/W)

t, Pulse Duration (sec)
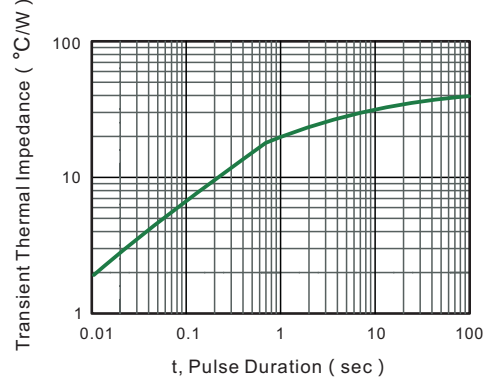
Package Outline   SMBF

Plastic surface mounted package; 2 leads

Top View

Bottom View
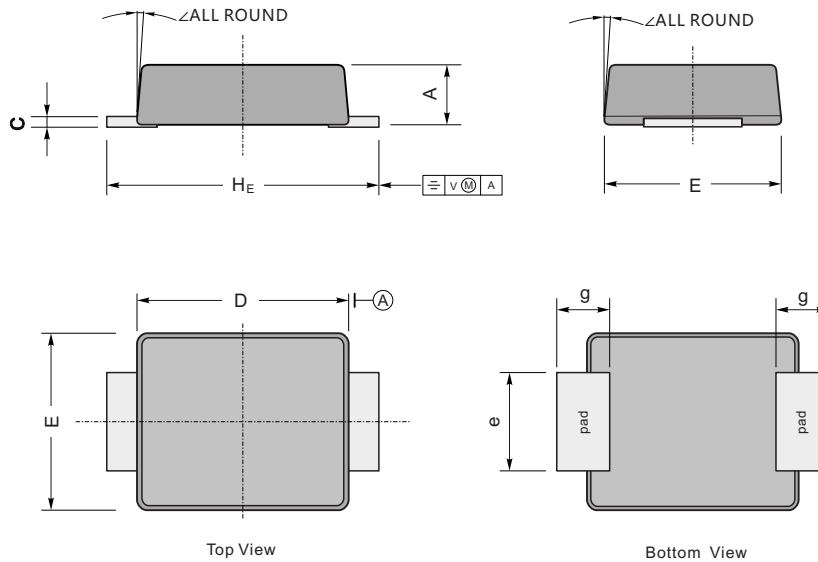
UNIT		A	C	D	E	H$_E$	e	g	∠
mm	max	1.3	0.26	4.4	3.7	5.5	2.2	1.0	9°
	min	1.1	0.18	4.2	3.5	5.1	1.9		
mil	max	51	10	173	146	216	86	40	
	min	43	7	165	138	200	75		

The recommended mounting pad size

1.8(71)   3.0(118)   1.8(71)

2.54(100)

Unit：mm(mil)
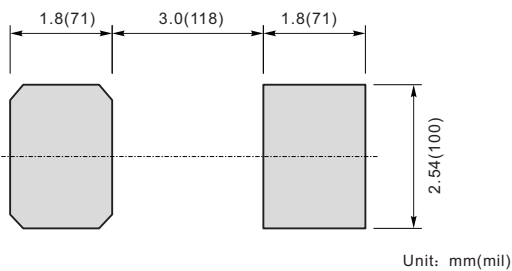
Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SMBF	Tape/Reel,13"reel	5000	EIA-481-1

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