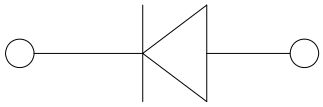
SSL54BF THRU SSL510BF

Surface Mount Schottky Rectifier



Features

- Guardring for overvoltage protection
- Low forward voltage drop,Low power losses
- High forward surge capability
- High frequency operation
- Solder dip 260 °C max. 10 s, per JESD 22-B106

Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Mechanical Data

- **Package**: SMBF
  Molding compound meets UL 94 V-0 flammability rating, -
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes the cathode end

■Maximum Ratings (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SSL54BF	SSL56BF	SSL510BF
Device marking code			SSL54BF	SSL56BF	SSL510BF
Repetitive Peak Reverse Voltage	V_{RRM}	V	40	60	100
Average Rectified Output Current @60Hz sine wave, Resistance load, Ta (FIG.1)	I_O	A	5.0		
Forward Surge Current (Non-repetitive) @ 60Hz Half-sine wave,1 cycle, Ta=25℃	I_{FSM}	A	100		
Storage Temperature	Tstg	℃	-55 ~+150		
Junction Temperature	Tj	℃	-55 ~+125	-55 ~+150	

■Electrical Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SSL54BF	SSL56BF	SSL510BF
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=5.0A	0.45	0.5	0.7
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	mA	Ta=25℃	0.5		0.1
			Ta=100℃	10		5

Note1:Pulse test:300uS pulse widh,1% duty cycle

Note2:Pulse test:pulse widh 40mS

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■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	SSL54BF	SSL56BF	SSL510BF
Typical Thermal Resistance(1)	RθJ-A	℃/W	58		
	RθJ-L		20		
	RθJ-C		15		

Note:
(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad area

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SSL54BF-SSL510BF	F1	Approximate 0.096	5000	/	80000	13” reel

■ Characteristics(Typical)

FIG.1: Io-TL Curve

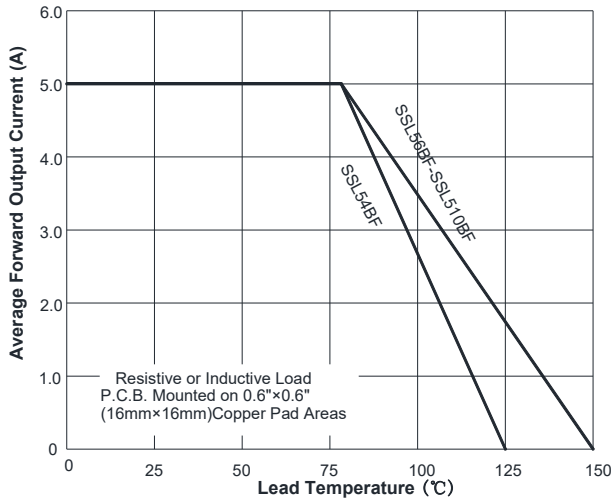


FIG.2: Forward Surge Currrent Capability

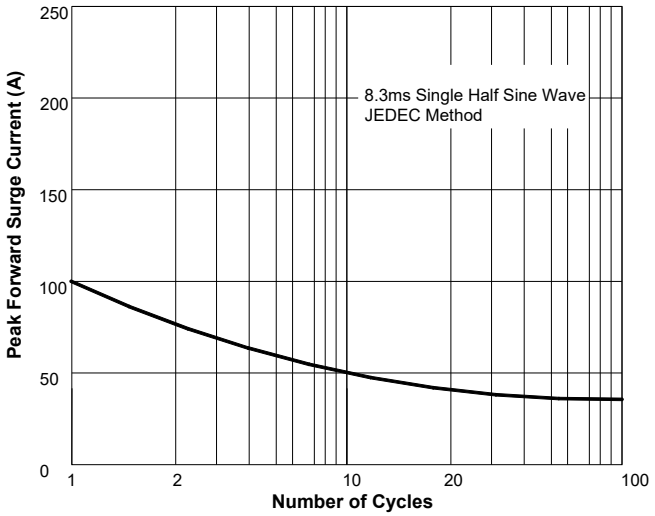


FIG.3: Forward Voltage

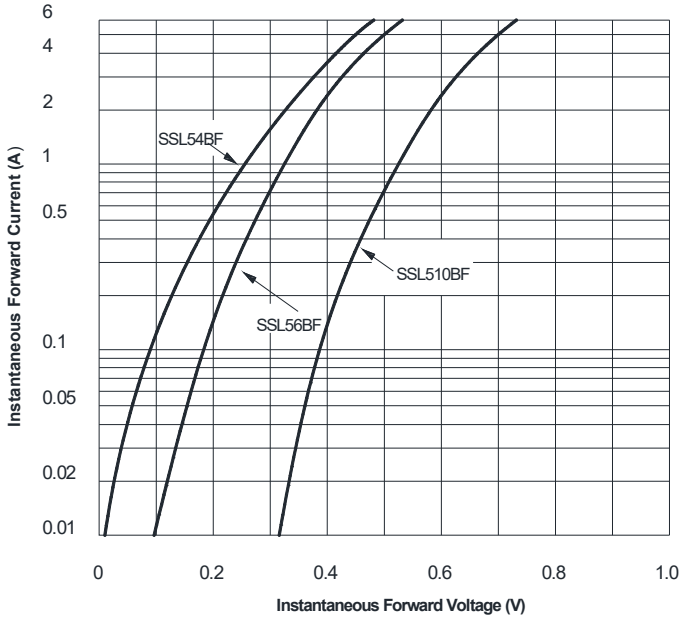
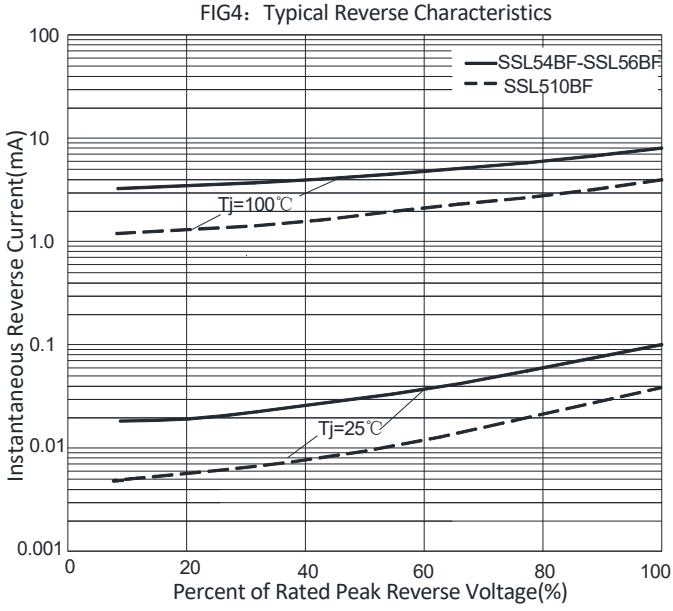
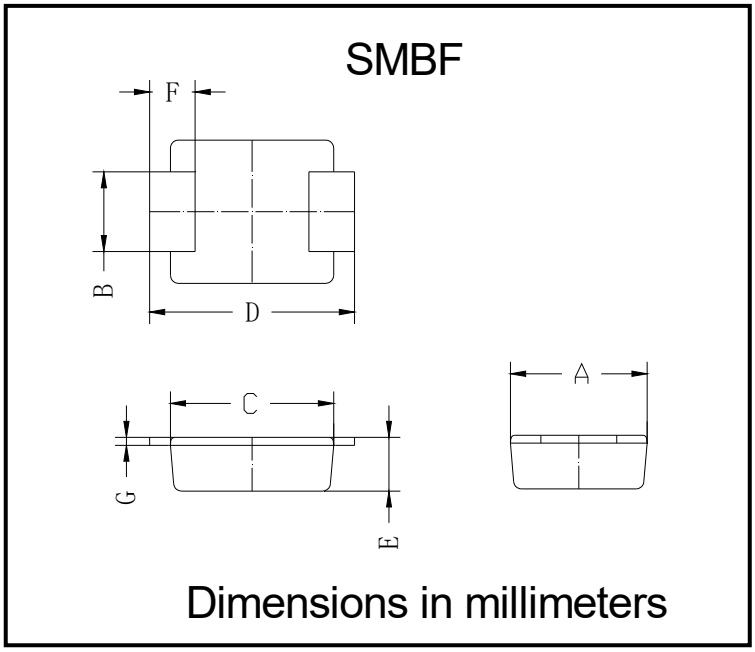


FIG4：Typical Reverse Characteristics

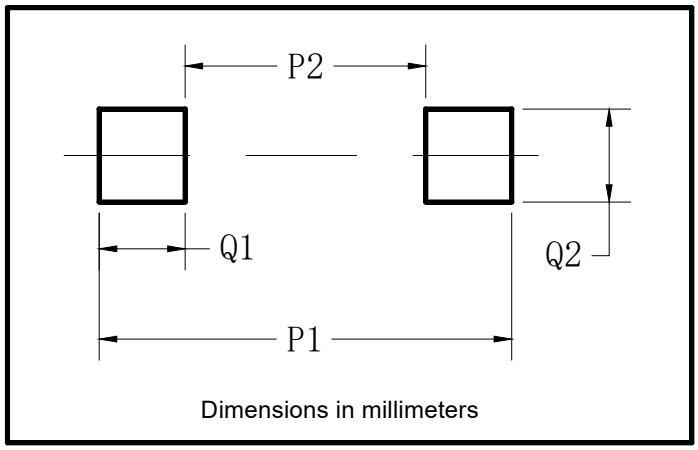


■ Outline Dimensions



SMBF		
Dim	Min	Max
A	3.40	3.80
B	1.90	2.10
C	4.15	4.45
D	5.10	5.60
E	1.05	1.55
F	0.70	1.35
G	0.15	0.25

■ Suggested pad layout



Dim	Milimeters
P1	6.20
P2	2.40
Q1	1.90
Q2	2.20

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