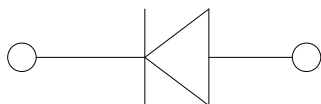


Surface Mount Schottky Rectifier



Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- Low VF
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

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, -compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■Maximum Ratings (T_j=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SSL545BF
Device marking code			SSL545BF
Repetitive peak reverse voltage	V _{RRM}	V	45
Average rectified output current @60Hz sine wave, resistance load, T _c (FIG.1)	I _O	A	5.0
Surge(non-repetitive)forward current @ 60Hz half-sine wave, 1 cycle, T _j =25°C	I _{FSM}	A	120
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T _j =25°C			240
Current squared time @1ms≤t≤8.3ms T _j =25°C, Rating of per diode	I ² t	A ² S	59
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	C _j	pF	300
Storage temperature	T _{stg}	°C	-55 ~+150
Junction temperature	T _j	°C	-55 ~+150

SSL545BF

■Electrical Characteristics (T_j=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Peak Forward Voltage	V _F	V	I _{FM} =5.0A T _j =25°C	-	0.43	0.45
			I _{FM} =5.0A T _j =125°C	-	-	0.42
Maximum DC reverse current at rated DC blocking voltage per diode @ V _{RM} =V _{RRM}	I _{RRM}	mA	V _{RM} =V _{RRM} T _j =25°C	-	-	0.5
			V _{RM} =V _{RRM} T _j =125°C	-	-	50

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

Note2:Pulse test:pulse width 40mS

■Thermal Characteristics (T_j=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SSL545BF
Typical Thermal resistance	R _{θJA} ⁽¹⁾	°C/W	65
	R _{θJL} ⁽¹⁾		25
	R _{θJC} ⁽¹⁾		15

Note

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

■ Characteristics (Typical)

FIG1: I_o-T_c Curve

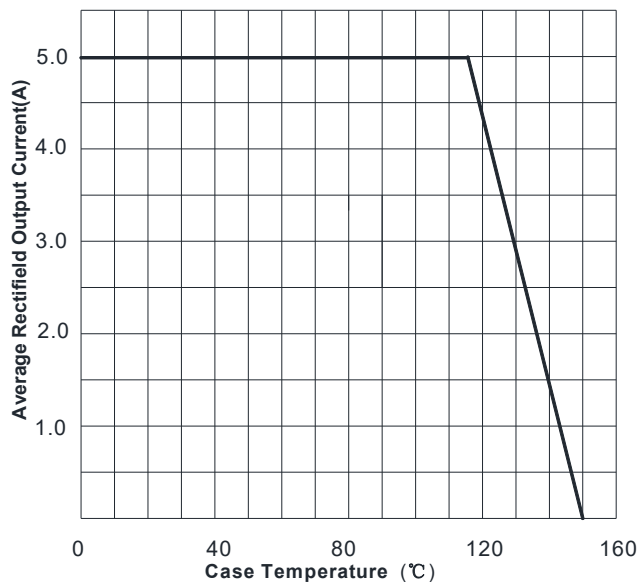


FIG2: Surge Forward Current Capability

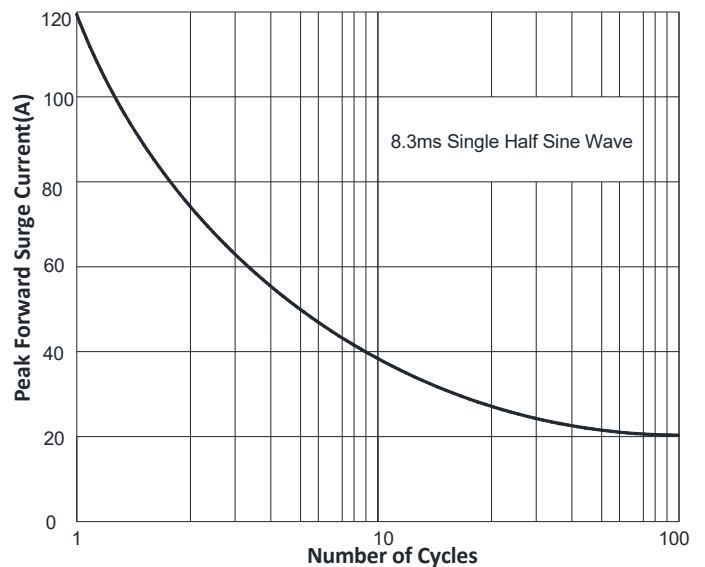


FIG3: Typical Forward Voltage

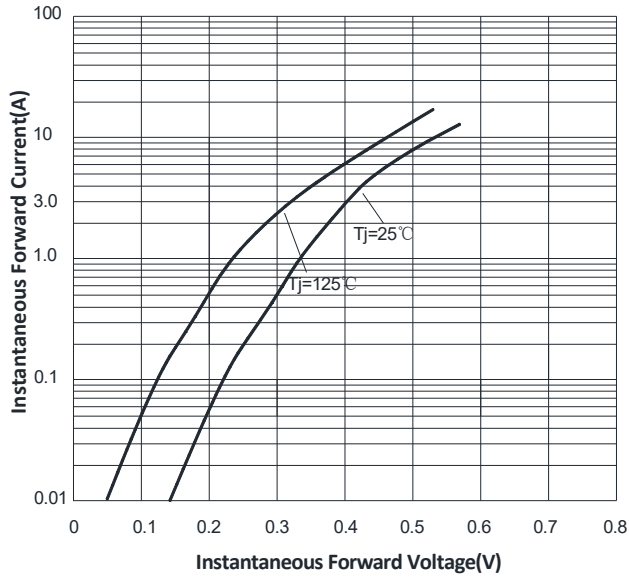
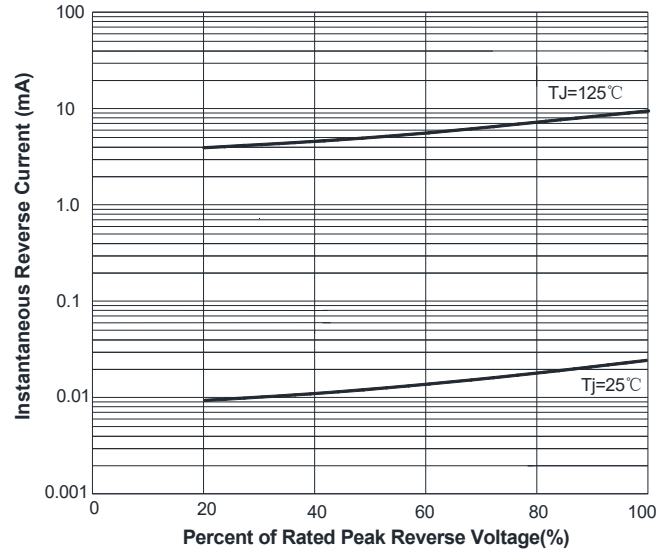


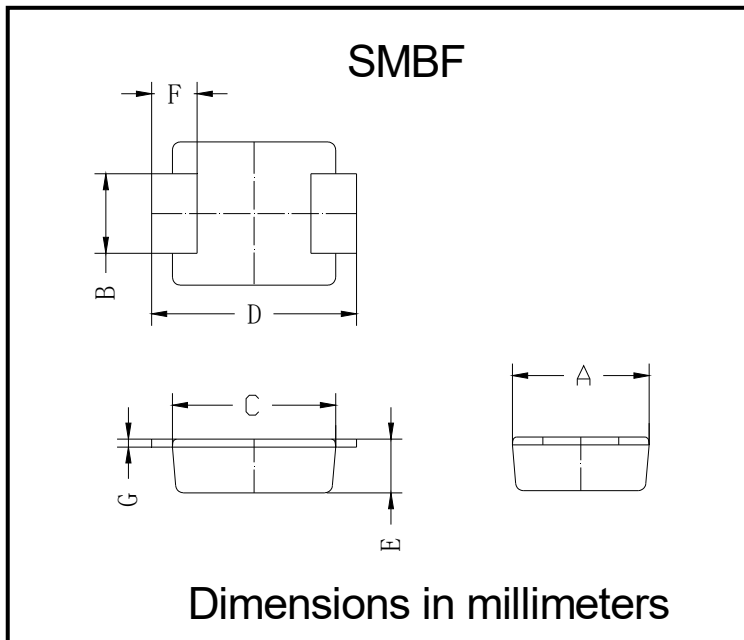
FIG.4: TYPICAL REVERSE CHARACTERISTICS



■ Ordering Information (Example)

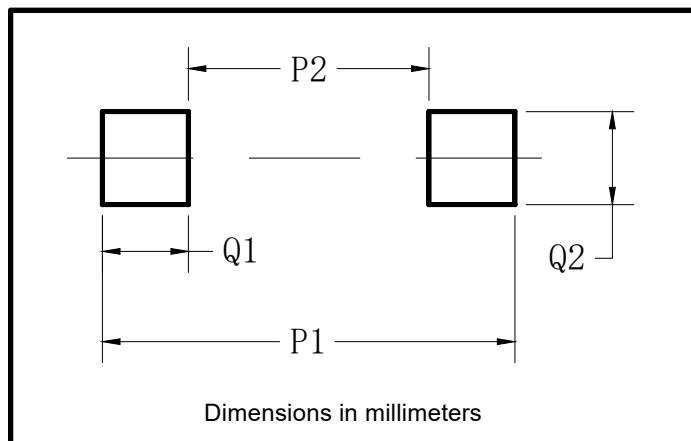
PREFERRED P/N	PACKING CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SSL545BF	F1	5000	/	80000	13" reel

■ 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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