

Schottky Barrier Rectifiers

Reverse Voltage - 150 V

Forward Current - 5.0 A

FEATURES

- ◆For surface mounted applications
- ◆Ideal for automated placement
- ◆High forward surge current capability
- ◆The plastic package carries Underwriters
- ◆Laboratory Flammability Classification 94V-0
- ◆High temperature soldering guaranteed 260°C/10 seconds at terminals
- ◆Case :SMBF

Application

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

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	SSL515BF	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	150	V
Maximum RMS voltage	V_{RMS}	105	V
Maximum DC Blocking Voltage	V_{DC}	150	V
Maximum Average Forward Rectified Current TC=125°C	$I_{F(AV)}$	5.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method)	I_{FSM}	120	A
Maximum Instantaneous Forward Voltage at 5.0 A	V_F	0.8	V
Maximum Instantaneous Reverse Current at Rated DC Reverse Voltage $T_A = 25^{\circ}C$ $T_A = 125^{\circ}C$ $T_A = 150^{\circ}C$	I_R	0.1 0.1 0.5	uA mA mA
Typical Junction Capacitance	C_j	100	pF
Typical Thermal Resistance	$R_{\theta JA}$ $R_{\theta JC}$	58 15	°C/W
Operating Junction Temperature Range	T_j	-55 ~ +150	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

Note:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas

Pinning

1.Cathode	2.Anode
	
	
SMBF	

Marking Code

SSL515BF	YFW SSL515B
----------	-------------

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

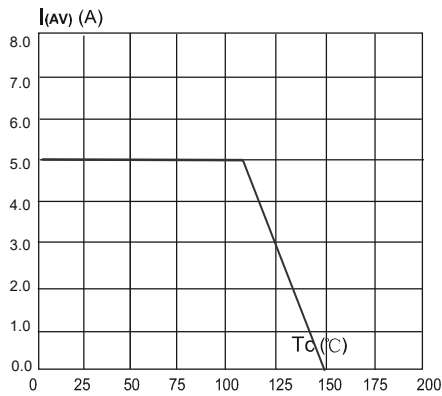


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

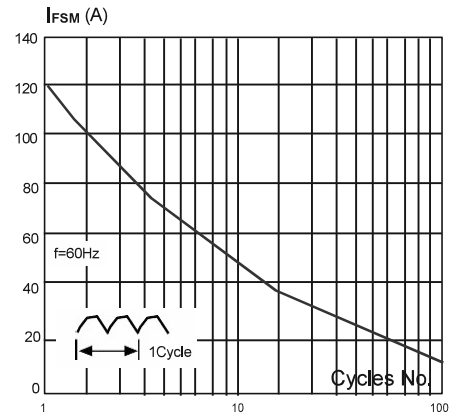


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

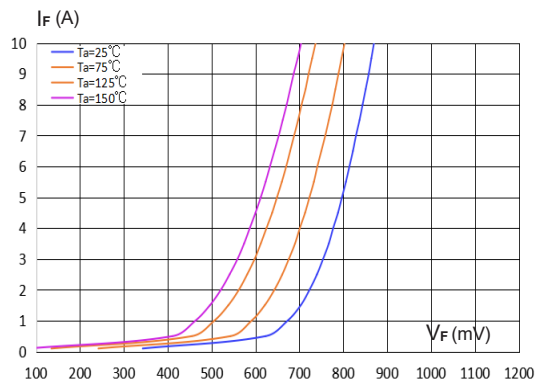
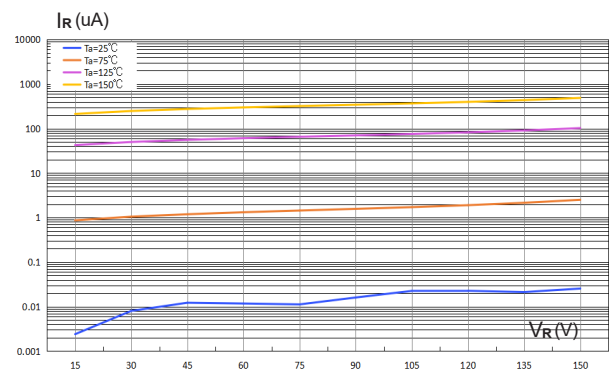
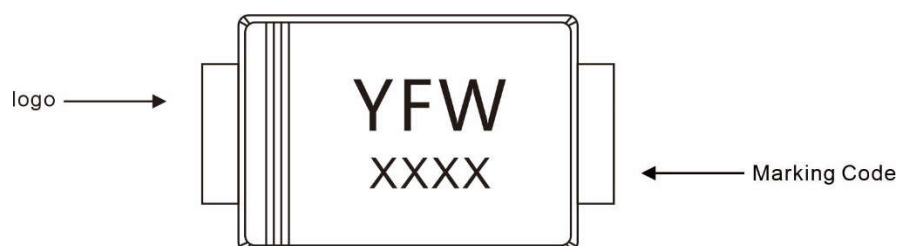


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Diagram

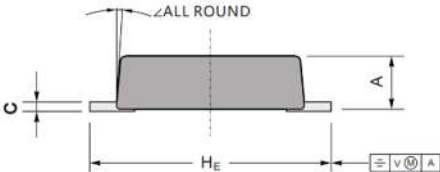
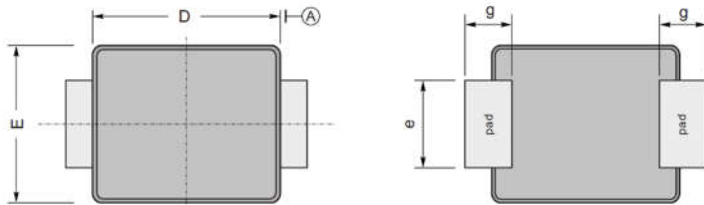


Ordering information

Package	Packing Description	Packing Quantity
SMBF	Tape/Reel, 13" reel	5000PCS/Reel 50000PCS/Carton

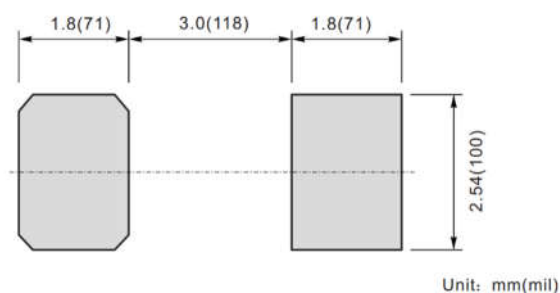
Package Dimensions

SMBF

	
Top View	Bottom View

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	1.1	1.3	43	51
C	0.18	0.26	7	10
D	4.2	4.4	165	173
E	3.5	3.7	138	146
H _E	5.1	5.5	200	216
e	2.2	1.9	75	86
g	1.0		40	
∠	9°			

The recommended mounting pad size



Disclaimer

The information presented in this document is for reference only. Guangdong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <https://www.yfwdiode.com>, or consult YFW sales office for further assistance.