

Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 20 to 200 V

Forward Current - 2 A

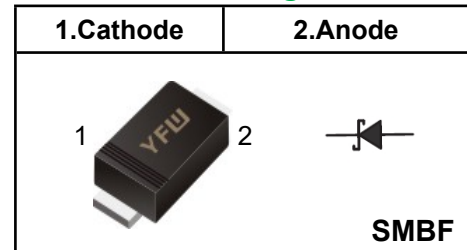
FEATURES

- ◆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



Marking Code

SS22BF	YFW S22B
SS24BF	YFW S24B
SS26BF	YFW S26B
SS28BF	YFW S28B
SS210BF	YFW S210B
SS212BF	YFW S212B
SS215BF	YFW S215B
SS220BF	YFW S220B

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	SS22BF	SS24BF	SS26BF	SS28BF	SS210BF	SS212BF	SS215BF	SS220BF	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	I_{F(AV)}	2.0								A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method)	I_{FSM}	50								A
Peak Forward Surge Current,1.0ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	100								A
I ² t Rating for fusing (3ms≤t≤8.3ms)	I²t	10.3								A²S
Maximum Instantaneous Forward Voltage at 2 A	V_F	0.55		0.70		0.85		0.95		V
Maximum Instantaneous Reverse Current at Rated DC Reverse Voltage TA = 25°C TA = 100°C	I_R	0.5 5			0.3 3					mA
Typical Junction Capacitance ⁽¹⁾	C_j	93		70		53	40		35	pF
Typical Thermal Resistance ⁽²⁾	R_{θJA} R_{θJC} R_{θJL}	100 20 25								°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" X 2.0" (5 X 5 cm) copper pad areas.

Fig.1 Forward Current Derating Curve

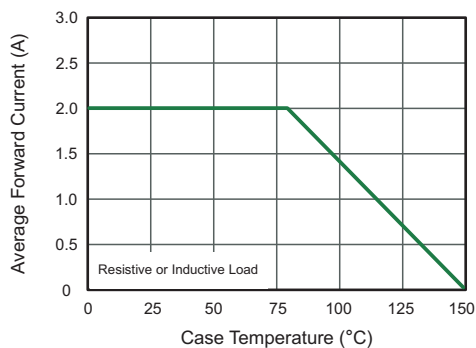


Fig.2 Typical Reverse Characteristics

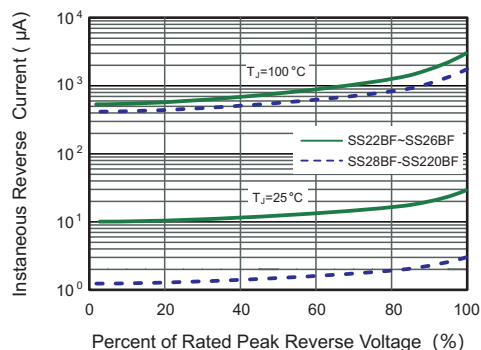


Fig.3 Typical Forward Characteristic

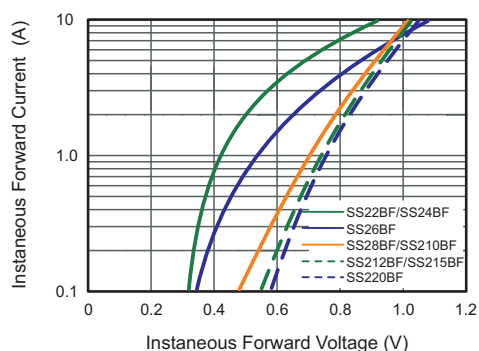


Fig.4 Typical Junction Capacitance

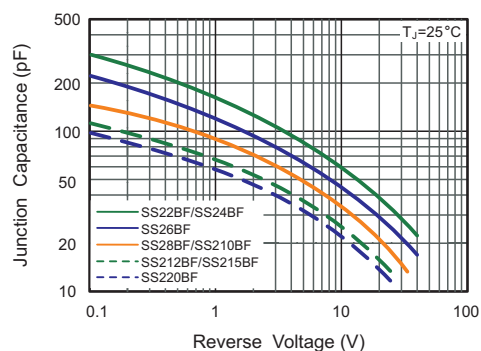
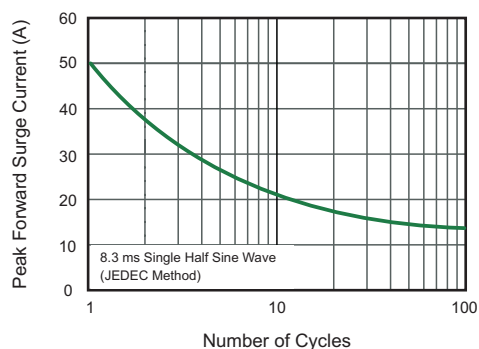
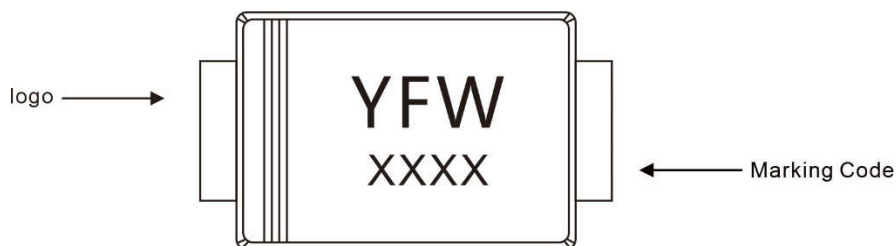


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Marking Diagram

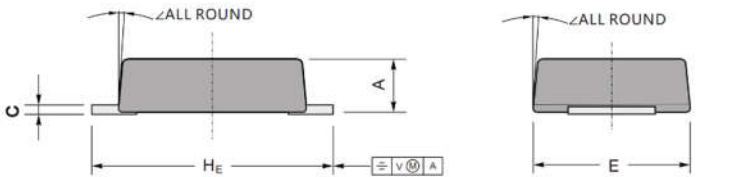
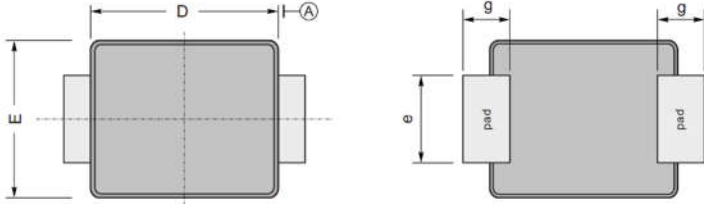


Ordering information

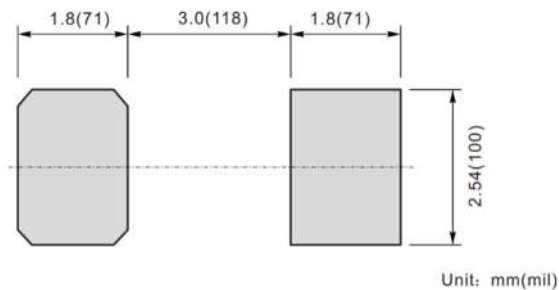
Package	Packing Description	Packing Quantity
SMBF	Tape/Reel, 13" reel	5000PCS/Reel 50000PCS/Carton

Package Dimensions

SMBF

	<table><tr><th rowspan="2">Dim.</th><th colspan="2">Millimeter(mm)</th><th colspan="2">mil</th></tr><tr><th>Min.</th><th>Max.</th><th>Min.</th><th>Max.</th></tr><tr><td>A</td><td>1.1</td><td>1.3</td><td>43</td><td>51</td></tr><tr><td>C</td><td>0.18</td><td>0.26</td><td>7</td><td>10</td></tr><tr><td>D</td><td>4.2</td><td>4.4</td><td>165</td><td>173</td></tr><tr><td>E</td><td>3.5</td><td>3.7</td><td>138</td><td>146</td></tr><tr><td>H_E</td><td>5.1</td><td>5.5</td><td>200</td><td>216</td></tr><tr><td>e</td><td>2.2</td><td>1.9</td><td>75</td><td>86</td></tr><tr><td>g</td><td colspan="2">1.0</td><td colspan="2">40</td></tr><tr><td>∠</td><td colspan="4">9°</td></tr></table>	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°			
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The recommended mounting pad size



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