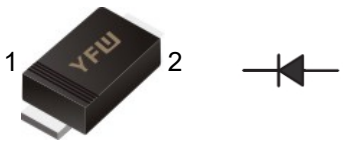
Surface Mount Fast Recovery Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 3 A

Pinning

1.Cathode	2.Anode



SMBF

FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Fast reverse recovery time
- 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

Marking Code	
RS3ABF	YFW R3AB
RS3BBF	YFW R3BB
RS3DBF	YFW R3DB
RS3GBF	YFW R3GB
RS3JBF	YFW R3JB
RS3KBF	YFW R3KB
RS3MBF	YFW R3MB

Absolute Maximum Ratings and characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	RS3ABF	RS3BBF	RS3DBF	RS3GBF	RS3JBF	RS3KBF	RS3MBF	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T_c = 125 °C	$I_{F(AV)}$	3							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	100							A
Maximum Instantaneous Forward Voltage at 3 A	V_F	1.3							V
Maximum DC Reverse Current T_a = 25 °C at Rated DC Blocking Voltage T_a=125 °C	I_R	5 100							μA
Typical Junction Capacitance at V_R=4V,f=1MHZ	C_j	40							pF
Maximum Reverse Recovery Time (1)	Trr	150				250	500		nS
Typical Thermal Resistance (2)	$R_{\theta JA}$/ $R_{\theta JC}$	45/15							°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							°C

(1) Measured with I_F=0.5A,I_R=1A,I_n=0.25A

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Fig.1 Maximum Average Forward Current Rating

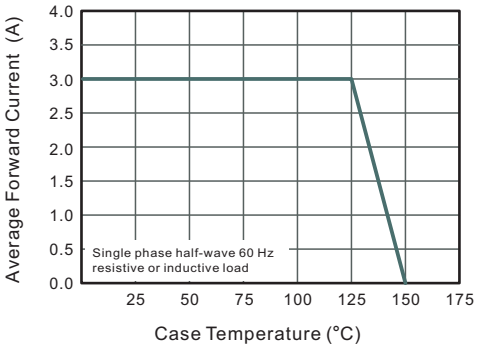


Fig.2 Typical Reverse Characteristics

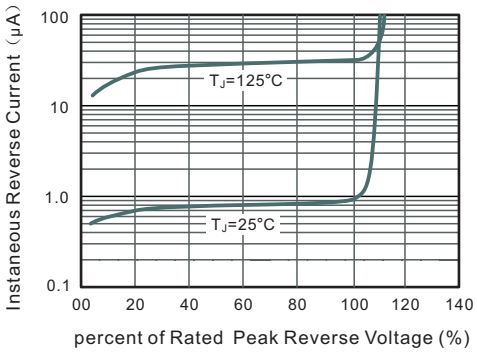


Fig.3 Typical Instaneous Forward Characteristics

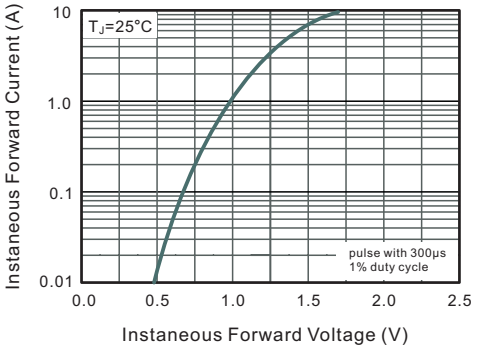


Fig.4 Typical Junction Capacitance

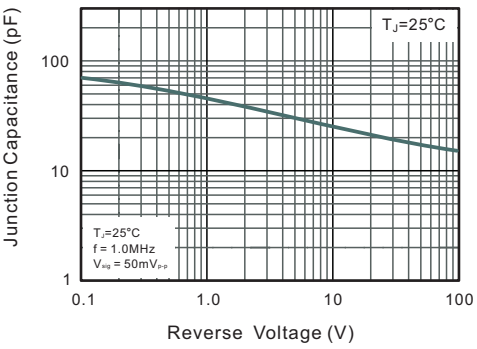
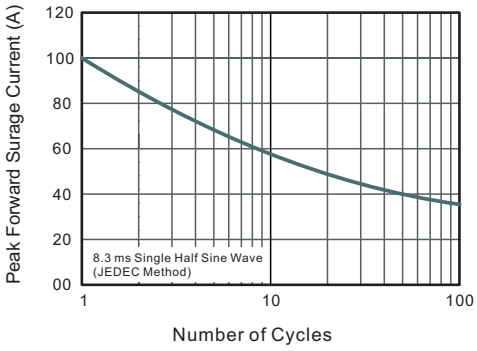
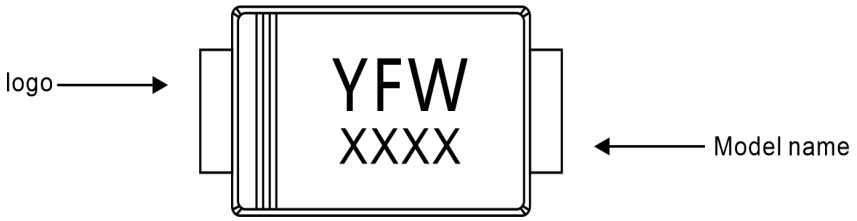


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



Marking Diagram

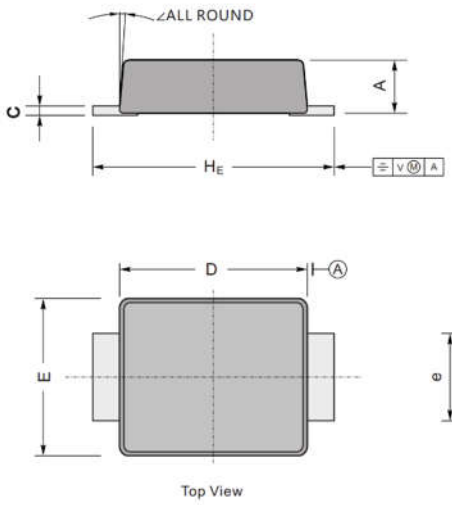


Ordering information

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

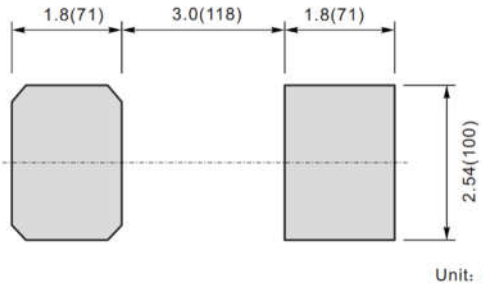
Package Dimensions

SMBF



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



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