

SS24-BF THRU SS220-BF

2.0A Surface Mount Schottky Barrier Rectifiers - 40V-200V

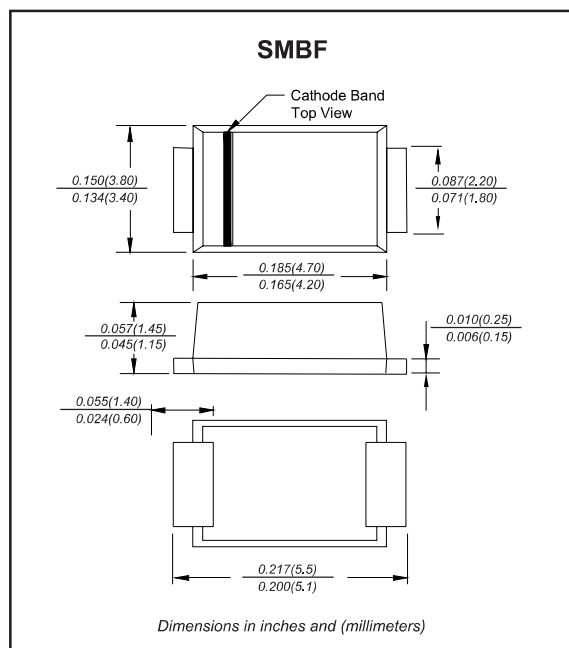
Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals
- ◆ Compliant to RoHS Directive 2011/65/EU
- ◆ Compliant to Halogen-free

Mechanical data

- ◆ **Case:** JEDEC SMBF molded plastic body
- ◆ **Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026
- ◆ **Polarity:** Color band denotes cathode end
- ◆ **Mounting Position:** Any

Package outline

Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.1	I_O			2.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			50	A
Reverse current	$T_A = 25^\circ\text{C}$	$V_R = 40\text{V} - 60\text{V}$			0.5	mA
		$V_R = 80\text{V} - 200\text{V}$			0.1	
Reverse current	$T_A = 100^\circ\text{C}$	$V_R = 40\text{V} - 60\text{V}$			10	mA
		$V_R = 80\text{V} - 200\text{V}$			5	
Thermal resistance (1)	Junction to Ambient		$R_{\theta JA}$	65		$^\circ\text{C/W}$
	Junction to Case		$R_{\theta JC}$	16		
	Junction to Lead		$R_{\theta JL}$	15		
Diode junction capacitance	$f=1\text{MHz}$ and applied 4V DC reverse voltage		C_J	220		pF
Storage temperature			T_{STG}	-65	+150	$^\circ\text{C}$

Note: (1) Device mounted on p.c.b. with 10 mm x 20 mm x 0.1 mm copper pad area.

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_J , (°C)
SS24-BF	40	28	40	0.55	-55 to +125
SS245-BF	45	32	45		
SS25-BF	50	35	50	0.70	-55 to +150
SS26-BF	60	42	60		
SS28-BF	80	56	80	0.85	
SS210-BF	100	70	100		
SS215-BF	150	105	150	0.92	
SS220-BF	200	140	200		

*1 Repetitive peak reverse voltage

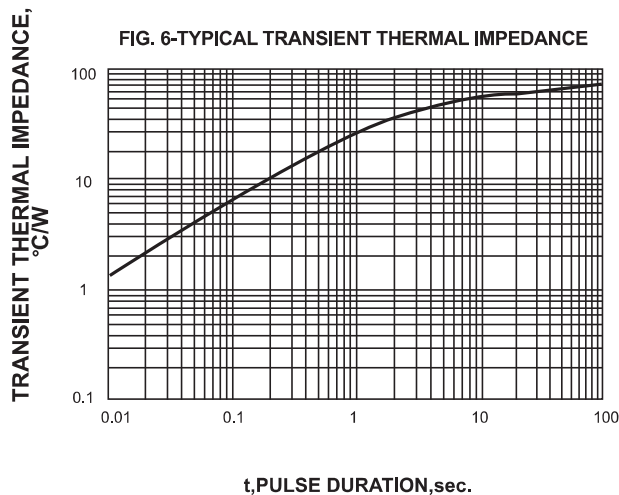
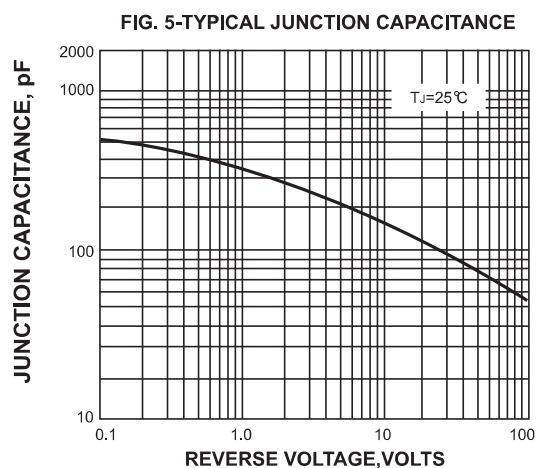
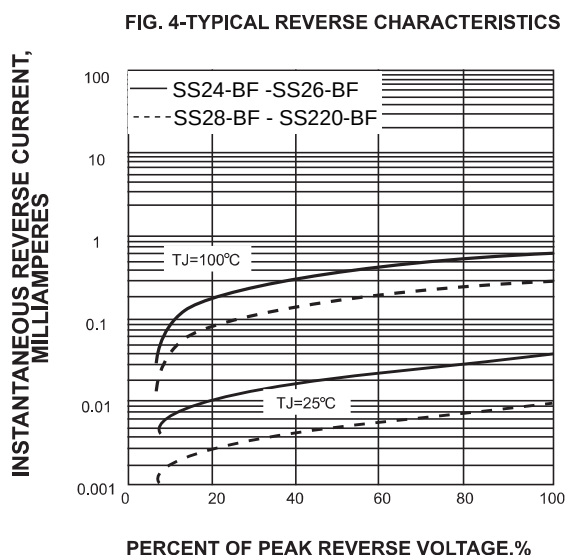
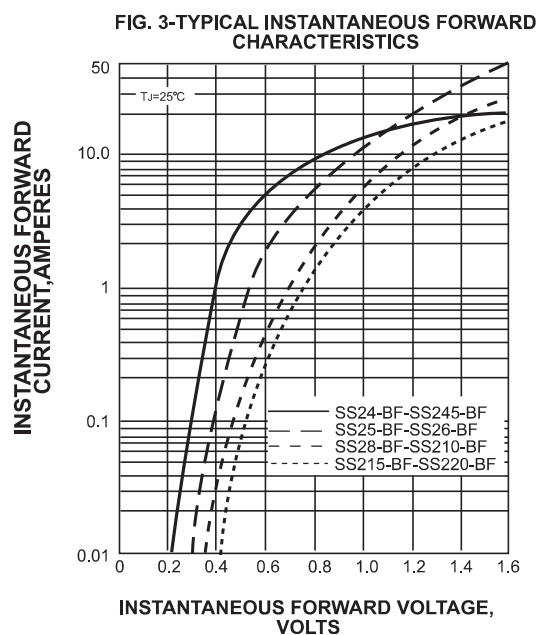
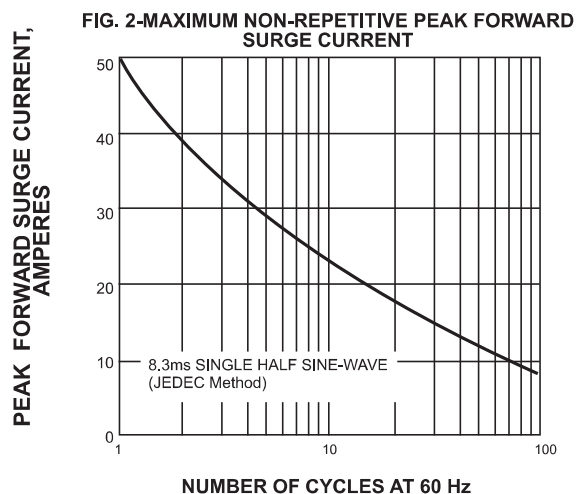
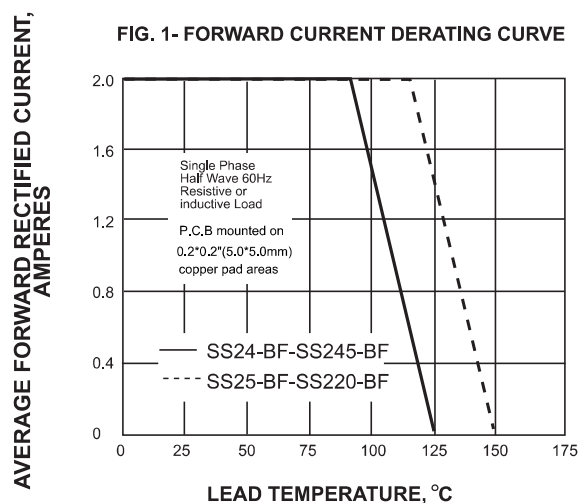
*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F=2.0\text{A}$

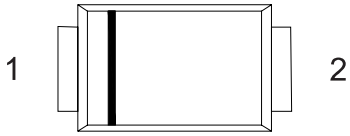
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Rating and characteristic curves

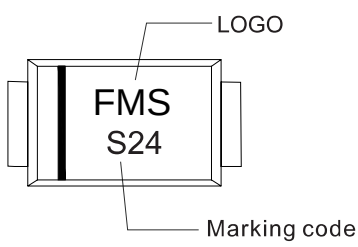


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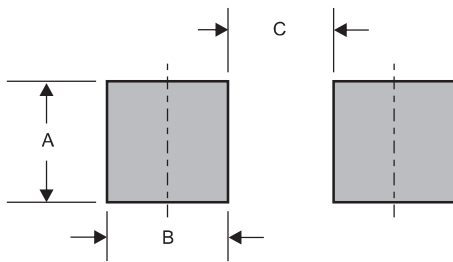
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code	Example
SS24-BF	S24	
SS245-BF	S245	
SS25-BF	S25	
SS26-BF	S26	
SS28-BF	S28	
SS210-BF	S210	
SS215-BF	S215	
SS220-BF	S220	

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SMBF	0.098 (2.50)	0.071 (1.80)	0.118 (3.00)