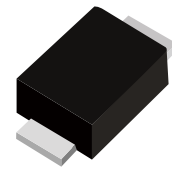
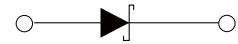


FEATURES

- | For surface mounted applications
- | Built-in strain relief, ideal for automated placement
- | Low reverse leakage
- | High forward surge current capability



SMBF



Schematic Symbol

MECHANICAL DATA

- | Case : Molded plastic body
- | Polarity : Polarity symbol marking on body
- | Mounting Position: Any

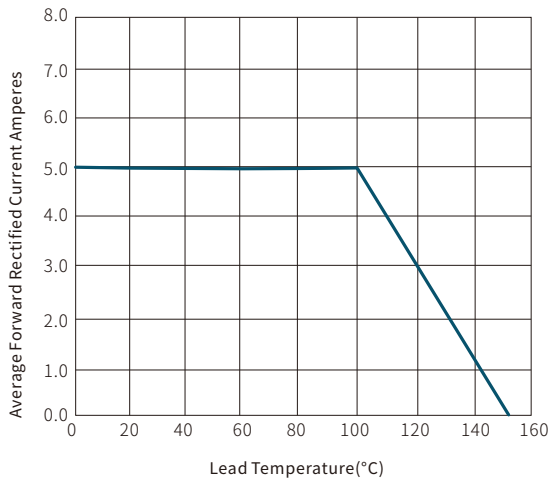
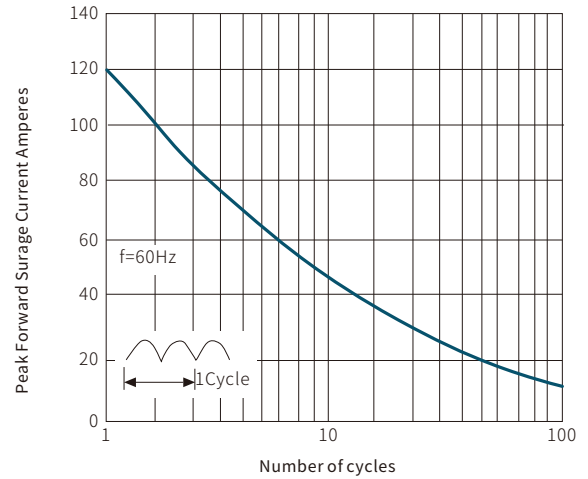
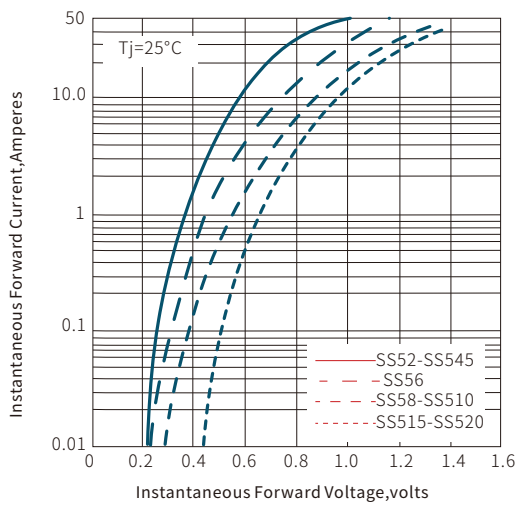
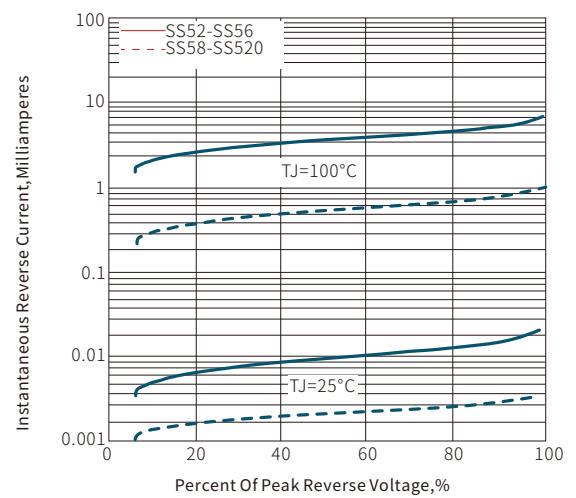
APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

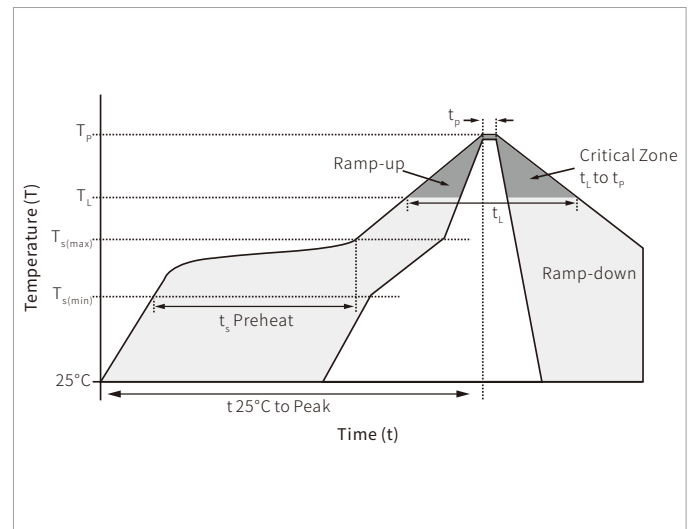
Parameter	Symbol	SS52BF	SS54BF	SS545BF	SS56BF	SS58BF	SS510BF	SS515BF	SS520BF	Unit
Marking		SS52BF	SS54BF	SS545BF	SS56BF	SS58BF	SS510BF	SS515BF	SS520BF	
Repetitive Peak Reverse Voltage	V_{RRM}	20	40	45	60	80	100	150	200	V
Reverse Voltage, total Rms Value	V_{RMS}	14	28	31.5	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	45	60	80	100	150	200	V
Maximum Average Forward Rectified Current at $T_L=100^{\circ}\text{C}$	$I_{F(AV)}$	5.0								A
Surge Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed On Rated Load Per Diode	I_{FSM}	120.0								A
Maximum Instantaneous Forward Voltage at 5.0A	V_F	0.55		0.70		0.85		0.95		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}\text{C}$	0.2				0.05				mA
	$T_A=100^{\circ}\text{C}$	10				5				mA
Typical Thermal Resistance	$R_{\theta JA}$	85.0								$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-55 to +150								$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150								$^{\circ}\text{C}$

CHARACTERISTIC CURVES

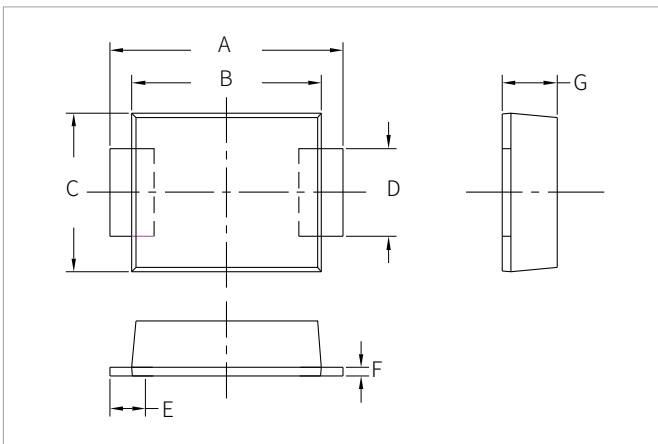
Fig. 1- Derating Curve Output Rectified Current

Fig. 2- Maximum Non-repetitive Peak Forward Surge Current Perleg

Fig. 3- Typical Forward Voltage Characteristics

Fig. 4- Typical Reverse Leakage Characteristics


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_i)	60 – 150 seconds
Peak Temperature (T_p)		260°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		260°C

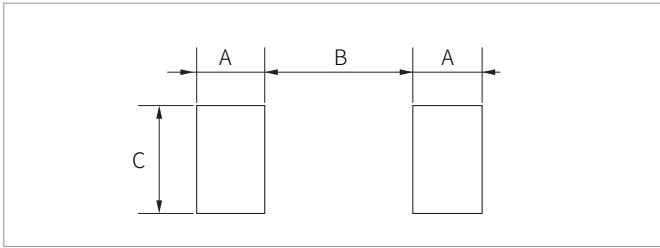


SMBF PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	5.10	5.50	0.201	0.217
B	4.10	4.50	0.161	0.177
C	3.40	3.80	0.134	0.150
D	1.90	2.10	0.075	0.083
E	0.70	-	0.028	-
F	0.15	0.25	0.006	0.010
G	1.00	2.20	0.039	0.087

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.0	-	0.079	-
B	-	2.5	-	0.098
C	2.2	-	0.087	-

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SS52BF-SS520BF	SMBF	3000PCS	13"

To find your local partner within Semiwell' s website : www.semiwell.com

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