

SMBFJ Series

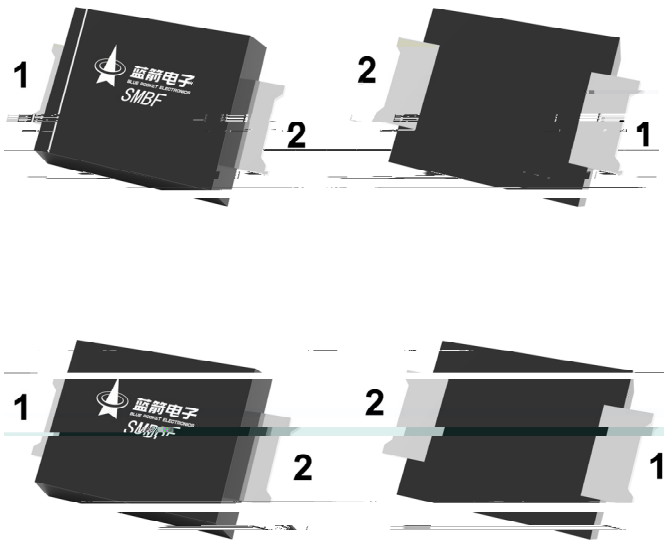
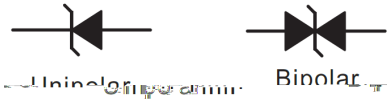
Rev.B Apr.-2025

600W, 5.0V~440V SMBF

Surface mount transient voltage suppressor power 600 watts, Stand-Off Voltage 5.0V~440V ,SMBF package.

Glass passivated junction, Low inductance, For surface mounted applications, HF Product.

General purpose.



/ Marking

See Marking Instructions.

SMBFJ Series

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DATA SHEET

Parameter		Symbol	Rating	Unit
Peak Pulse Power Dissipation on 10/1000 us waveform (Note1,Note2, Fig.1).		P _{PPM}	600	W
Peak Forward Surge Current,8.3ms Single Half Sine-Wave Superimposed on Rated Load, (JEDEC Method) (Note 3, Fig4).		I _{FSM} (UNI)	100	A
Peak Pulse Current on 10/1000 us waveform (Note 1, Fig 3)		I _{PPM}	see Table 1	A
Typical Junction capacitance at VR=4V, f=1MHz		C _J	390	pF
ESD Voltage per IEC6100-4-2	Contact	V _{ESD1}	± 30	KV
	Air	V _{ESD2}	± 30	KV
Typical Thermal Resistance Junction to Ambient(Note 2)		R _{JA}	100	/W
Operating Junction Temperature and Storage Temperature Range		T _j , T _{stg}	-55 ~ +150	

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/ Electrical Characteristics(Ta=25)

Type		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current	Package	
			V _{BR} @ I _T						SMBF	
		V _{RRM}	Min	Max	I _T	I _R @ V _{RRM}	V _C @ I _{PP}	I _{PP}	Device Marking Code	
UNI	BI	V	V	V	mA	uA	V	A	UNI	BI
SMBFJ5.0A	SMBFJ5.0CA	5	6.4	7	10	800	9.2	65.3	KE	AE
SMBFJ6.0A	SMBFJ6.0CA	6	6.67	7.37	10	800	10.3	58.3	KG	AG
SMBFJ6.5A	SMBFJ6.5CA	6.5	7.22	7.98	10	500	11.2	53.6	KK	AK
SMBFJ7.0A	SMBFJ7.0CA	7	7.78	8.6	10	200	12.0	50.0	KM	AM
SMBFJ7.5A	SMBFJ7.5CA	7.5	8.33	9.21	1	100	12.9	46.6	KP	AP
SMBFJ8.0A	SMBFJ8.0CA	8	8.89	9.83	1	50	13.6	44.2	KR	AR
SMBFJ8.5A	SMBFJ8.5CA	8.5	9.44	10.4	1	20	14.4	41.7	KT	AT
SMBFJ9.0A	SMBFJ9.0CA	9	10	11.1	1	10	15.4	39.0	KV	AV
SMBFJ10A	SMBFJ10CA	10	11.1	12.3	1	5	17.0	35.3	KX	AX
SMBFJ11A	SMBFJ11CA	11	12.2	13.5	1	1	18.2	33.0	KZ	AZ
SMBFJ12A	SMBFJ12CA	12	13.3	14.7	1	1	19.9	30.0	LE	BE
SMBFJ13A	SMBFJ13CA	13	14.4	15.9	1	1	21.5	28.0	LG	BG
SMBFJ14A	SMBFJ14CA	14	15.6	17.2	1	1	23.2	25.9	LK	BK
SMBFJ15A	SMBFJ15CA	15	16.7	18.5	1	1	24.4	24.6	LM	BM
SMBFJ16A	SMBFJ16CA	16	17.8	19.7	1	1	26.0	23.1	LP	BP
SMBFJ17A	SMBFJ17CA	17	18.9	20.9	1	1	27.6	21.8	LR	BR
SMBFJ18A	SMBFJ18CA	18	20	22.1	1	1	29.2	20.6	LT	BT
SMBFJ20A	SMBFJ20CA	20	22.2	24.5	1	1	32.4	18.6	LV	BV
SMBFJ22A	SMBFJ22CA	22	24.4	26.9	1	1	35.5	16.9	LX	BX
SMBFJ24A	SMBFJ24CA	24	26.7	29.5	1	1	38.9	15.5	LZ	BZ
SMBFJ26A	SMBFJ26CA	26	28.9	31.9	1	1	42.1	14.3	ME	CE
SMBFJ28A	SMBFJ28CA	28	31.1	34.4	1	1	45.4	13.3	MG	CG
SMBFJ30A	SMBFJ30CA	30	33.3	36.8	1	1	48.4	12.4	MK	CK
SMBFJ33A	SMBFJ33CA	33	36.7	40.6	1	1	53.3	11.3	MM	CM
SMBFJ36A	SMBFJ36CA	36	40	44.2	1	1	58.1	10.4	MP	CP
SMBFJ40A	SMBFJ40CA	40	44.4	49.1	1	1	64.5	9.3	MR	CR
SMBFJ43A	SMBFJ43CA	43	47.8	52.8	1	1	69.4	8.7	MT	CT

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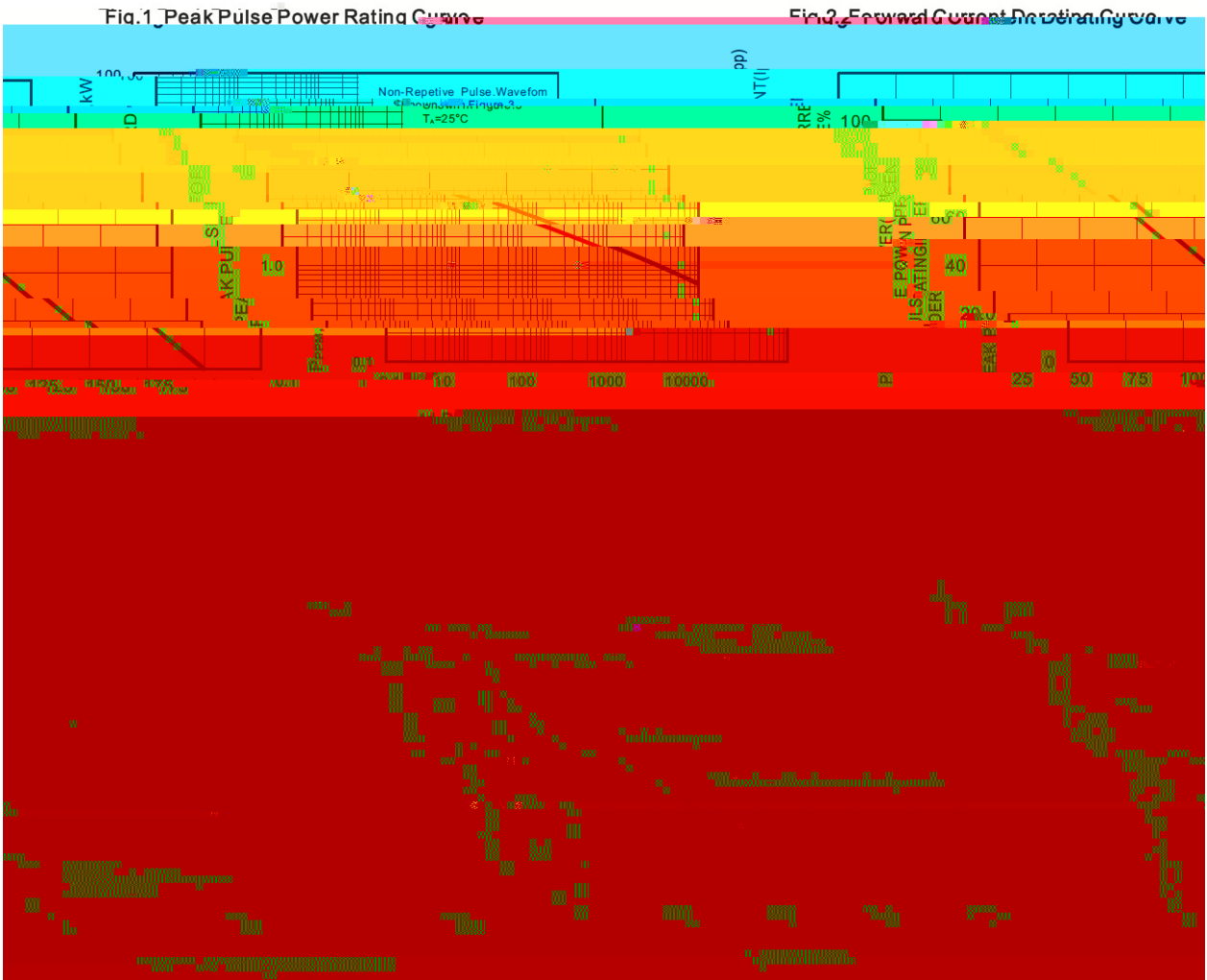
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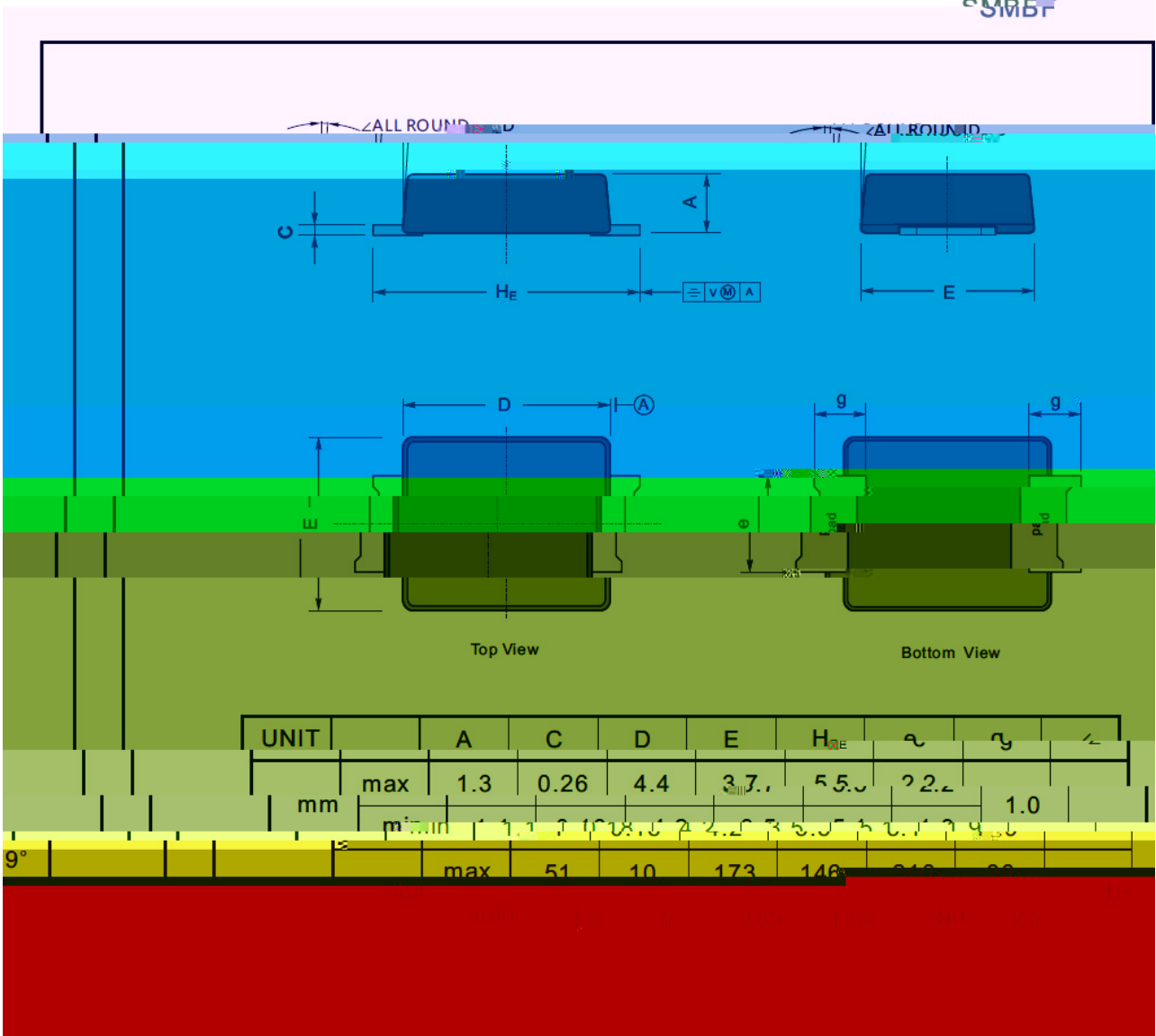
DATA SHEET

Type		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current	Package	
			V _{BR} @ I _T		I _T	I _R @ V _{R_{RRM}}	V _C @ I _{PP}	I _{PP}	SMB	
		V _{R_{RRM}}	Min	Max					Device Marking Ccode	
UNI	BI	V	V	V	mA	uA	V	A	UNI	BI
SMBFJ45A	SMBFJ45CA	45	50	55.3	1	1	72.7	8.3	MV	CV
SMBFJ48A	SMBFJ48CA	48	53.3	58.9	1	1	77.4	7.8	MX	CX
SMBFJ51A	SMBFJ51CA	51	56.7	62.7	1	1	82.4	7.3	MZ	CZ
SMBFJ54A	SMBFJ54CA	54	60	66.3	1	1	87.1	6.9	NE	DE
SMBFJ58A	SMBFJ58CA	58	64.							

/ Electrical Characteristic Curve



/ Package Dimensions



, M y f / Marking Instructions

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Note:

1 + y Product Type Code

**** y Lot No. Code, code change with Lot No

, M y f / Marking Instructions

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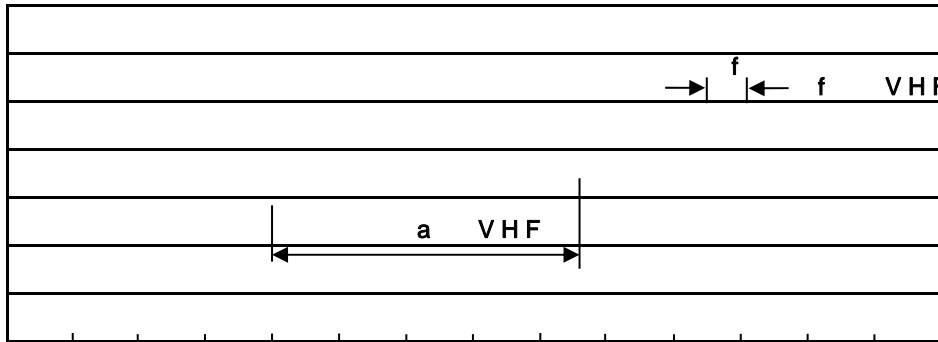
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Note:

1 + y Product Type Code

**** y Lot No. Code, code change with Lot No

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Wf)•bp T(Å 7]•4 F

^a ç y

1o• Å ½ “ † 150 ½180 - k ž • 60 ½90sec;

2o• Q › “ † 245 r5 - k ž • 4 Ò 5 r0.5sec;

3o•D N ò i Ò 0 , † 2 ½10 - /sec.

Note:

1.Preheating:150~180 - , Time:60~90sec.

2.Peak Temp.:245 r5 - , Duration:5 r0.5sec.

3. Cooling Speed: 2~10 - /sec.

ÂD /Cã p ~ »] / Resistance to Soldering Heat Test Conditions

“ † y 260 r5 -

ž • y 10 r1 sec.

Temp.:260±5

Time:10±1 sec

G P á / Packaging SPEC.

2 & x / REEL

Package Type 7>û ~ E	Units ;>û !H					Dimension ;>û p . (unit Åmm³)		
	Units/Reel /--	Reels/Inner Box -- /-	Units/Inner Box /-	Inner Boxes/Outer Box - /!ç	Units/Outer Box /!ç	Reel	Inner Box	Outer Boxç
SMBF	5,000	2	10,000	7	70,000	13 s ×12	336X336X40	380X335X366

„Đ y f / Notices