5 é / Descriptions

n µ É x 9 Á 9 ò ˜ ä y = F g ~ … 9 y 6.8V~550V k SMBF / xož

Surface mount transient voltage suppressor power 600 watts,Stand-Off Voltage y 6.8V~550V ,SMBF package.

¤ ª / Features

ì ødý k z ß k n µ É x k —)í D }ož

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

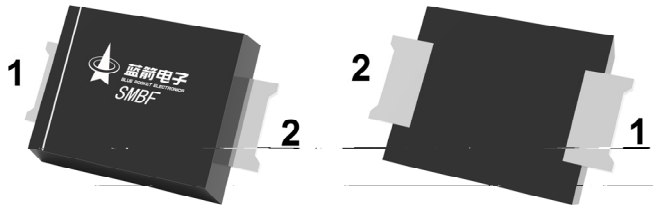
Ð ÷ / Applications

%² " (ož

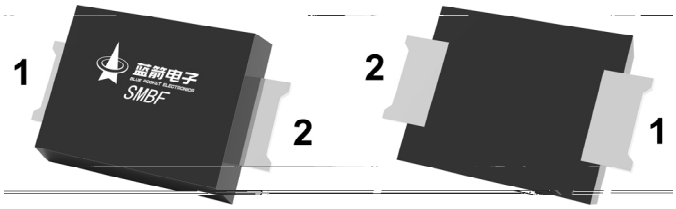
General purpose.

Ã W] Ô · / Equivalent Circuit

• Û - æ / Pinning

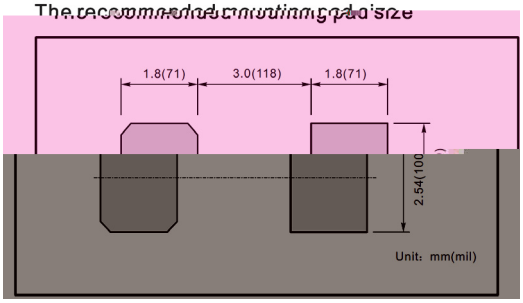


% â Å



E â Å

PIN	DESCRIPTION
1	Cathode
2	Anode



, M V / Marking

• - ~ ª ¢ož

See Marking Instructions.

@ *f* Parameter	… Z Symbol	*f* › Rating	% y 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 F

S

Ô4ì × ? d / Electrical Characteristics(Ta=25 ;)

Type		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Maximum Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current	Package	
			V_{BR} @ I_T						SMBF	
		V_{RRM}	Min	Max	I_T		V_C @ I_{PP}	I_{PP}	Device Marking Ccode	
UNI	BI	V	V	V	mA	uA	V	A	UNI	BI
P6SMBF6.8A	P6SMBF6.8CA	5.8	6.45	7.14	10	1000	10.5	58.1	6V8A	6V8C
P6SMBF7.5A	P6SMBF7.5CA	6.4	7.13	7.88	10	500	11.3	54	7V5A	7V5C
P6SMBF8.2A	P6SMBF8.2CA	7.02	7.79	8.61	10	200	12.1	50.4	8V2A	8V2C
P6SMBF9.1A	P6SMBF9.1CA	7.78	8.65	9.55	1	50	13.4	45.5	9V1A	9V1C
P6SMBF10A	P6SMBF10CA	8.55	9.5	10.5	1	10	14.5	42.1	10A	10C
P6SMBF11A	P6SMBF11CA	9.4	10.5	11.6	1	5	15.6	39.1	11A	11C
P6SMBF12A	P6SMBF12CA	10.2	11.4	12.6	1	5	16.7	36.5	12A	12C
P6SMBF13A	P6SMBF13CA	11.1	12.4	13.7	1	1	18.2	33.5	13A	13C
P6SMBF15A	P6SMBF15CA	12.8	14.3	15.8	1	1	21.2	28.8	15A	15C
P6SMBF16A	P6SMBF16CA	13.6	15.2	16.8	1	1	22.5	27.1	16A	16C
P6SMBF18A	P6SMBF18CA	15.3	17.1	18.9	1	1	25.5	24.2	18A	18C
P6SMBF20A	P6SMBF20CA	17.1	19	21	1	1	27.7	22	20A	20C
P6SMBF22A	P6SMBF22CA	18.8	20.9	23.1	1	1	30.6	19.9	22A	22C
P6SMBF24A	P6SMBF24CA	20.5	22.8	25.2	1	1	33.2	18.4	24A	24C
P6SMBF27A	P6SMBF27CA	23.1	25.7	28.4	1	1	37.5	16.3	27A	27C
P6SMBF30A	P6SMBF30CA	25.6	28.5	31.5	1	1	41.4	14.7	30A	30C
P6SMBF33A	P6SMBF33CA	28.2	31.4	34.7	1	1	45.7	13.3	33A	33C
P6SMBF36A	P6SMBF36CA	30.8	34.2	37.8	1	1	49.9	12.2	36A	36C
P6SMBF39A	P6SMBF39CA	33.3	37.1	41	1	1	53.9	11.3	39A	39C
P6SMBF43A	P6SMBF43CA	36.8	40.9	45.2	1	1	59.3	10.3	43A	43C
P6SMBF47A	P6SMBF47CA	40.2	44.7	49.4	1	1	64.8	9.4	47A	47C
P6SMBF51A	P6SMBF51CA	43.6	48.5	53.6	1	1	70.1	8.7	51A	51C
P6SMBF56A	P6SMBF56CA	47.8	53.2	58.8	1	1	77	7.9	56A	56C
P6SMBF58A	P6SMBF58CA	52.78	55.1	60.9	1	1	79.8	7.7	58A	58C
P6SMBF62A	P6SMBF62CA	53	58.9	65.1	1	1	85	7.2	62A	62C
P6SMBF68A	P6SMBF68CA	58.1	64.6	71.4	1	1	92	6.6	68A	68C
P6SMBF75A	P6SMBF75CA	64.1	71.3	78.8	1	1	103	5.9	75A	75C

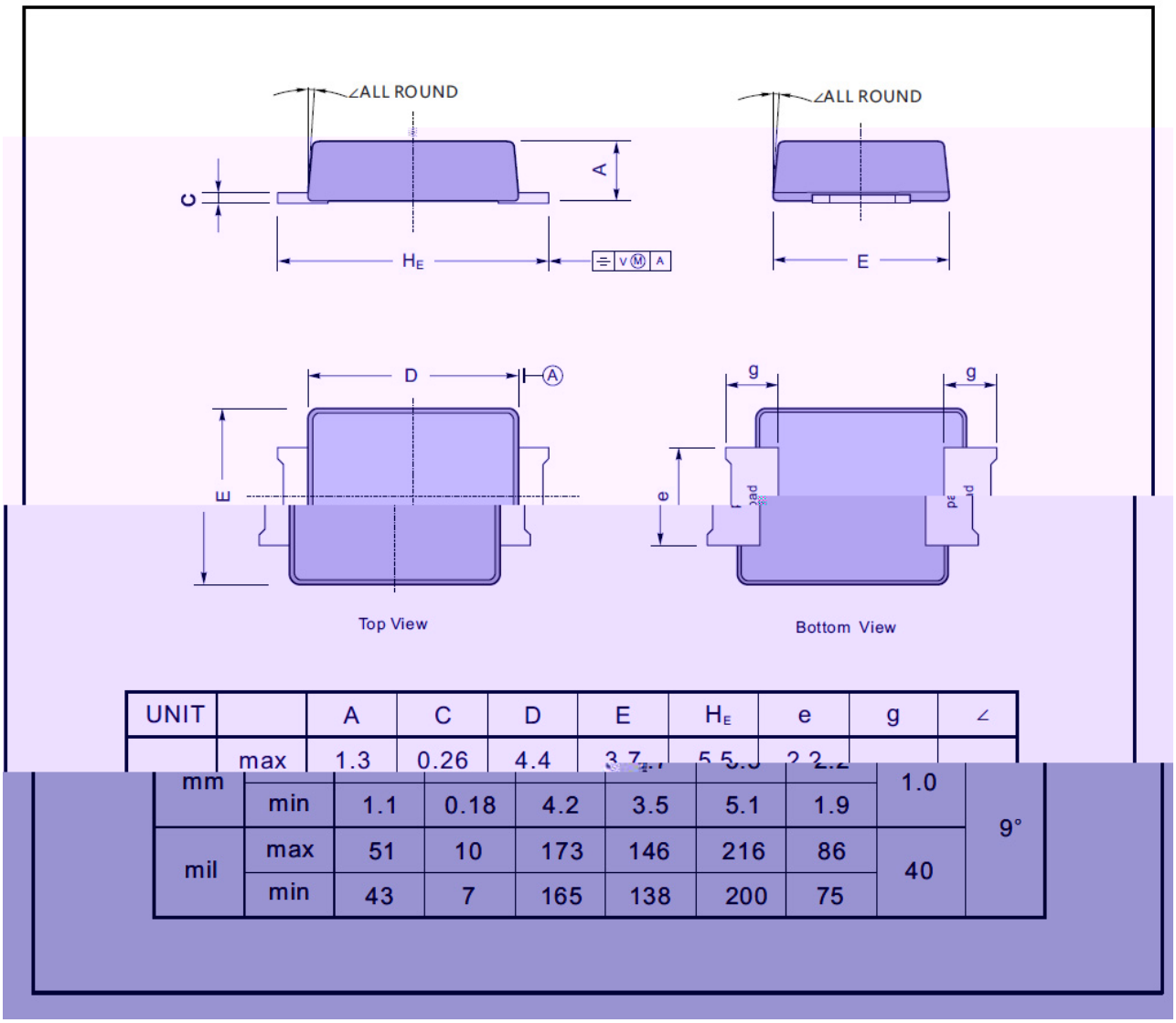
Ô4ì × ? d / Electrical Characteristics(Ta=25 ;)

Type		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Maximum Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current	Package	
			V_{BR} @ I_T						SMBF	
		V_{RRM}	Min	Max	I_T		V_C @ I_{PP}	I_{PP}	Device Marking Ccode	
UNI	BI	V	V	V	mA	uA	V	A	UNI	BI
P6SMBF82A	P6SMBF82CA	70.1	77.9	86.1	1	1	113	5.4	82A	82C
P6SMBF91A	P6SMBF91CA	77.8	86.5	95.5	1	1	125	4.9	91A	91C
P6SMBF100A	P6SMBF100CA	85.5	95	105	1	1	137	4.5	100A	100C
P6SMBF110A	P6SMBF110CA	94	105	116	1	1	152	4	110A	110C
P6SMBF120A	P6SMBF120CA	102	114	126	1	1	165	3.7	120A	120C
P6SMBF130A	P6SMBF130CA	111	124	137	1	1	179	3.4	130A	130C
P6SMBF150A	P6SMBF150CA	128	143	158	1	1	207	2.9	150A	150C
P6SMBF160A	P6SMBF160CA	136	152	168	1	1	219	2.8	160A	160C
P6SMBF170A	P6SMBF170CA	145	162	179	1	1	234	2.6	170A	170C
P6SMBF180A	P6SMBF180CA	154	171	189	1	1	246	2.5	180A	180C
P6SMBF200A	P6SMBF200CA	171	190	210	1	1	274	2.2	200A	200C
P6SMBF220A	P6SMBF220CA	185	209	231	1	1	328	1.9	220A	220C
P6SMBF250A	P6SMBF250CA	214	237	263	1	1	344	1.8	250A	250C
P6SMBF300A	P6SMBF300CA	256	285	315	1	1	414	1.5	300A	300C
P6SMBF350A	P6SMBF350CA	300	332	368	1	1	482	1.3	350A	350C
P6SMBF400A	P6SMBF400CA	342	380	420	1	1	548	1.1	400A	400C
P6SMBF440A	P6SMBF440CA	376	418	462	1	1	602	1	440A	440C
P6SMBF480A	P6SMBF480CA	408	456	504	1	1	658	0.9	480A	480C
P6SMBF510A	P6SMBF510CA	434	485	535	1	1	698	0.9	510A	510C
P6SMBF530A	P6SMBF530CA	451	503.5	556.5	1	1	725	0.8	530A	530C
P6SMBF540A	P6SMBF540CA	460	513	567	1	1	740	0.8	540A	540C
P6SMBF550A	P6SMBF550CA	468	522.5	577.5	1	1	760	0.8	550A	550C

Ô ? d • Ž ¢ / Electrical Characteristic Curve

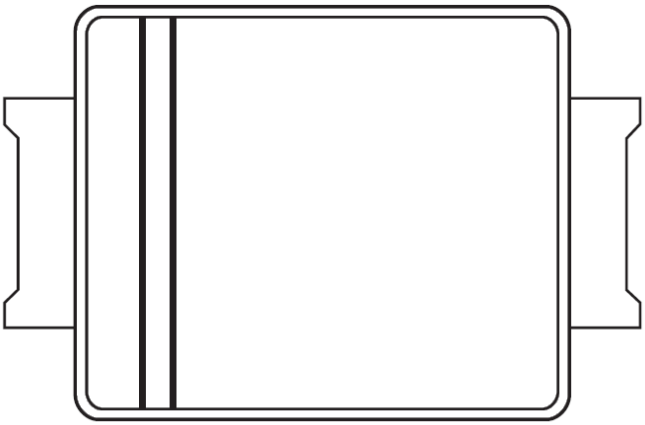
Ø ¤ =) ¢ / Package Dimensions

SMBF



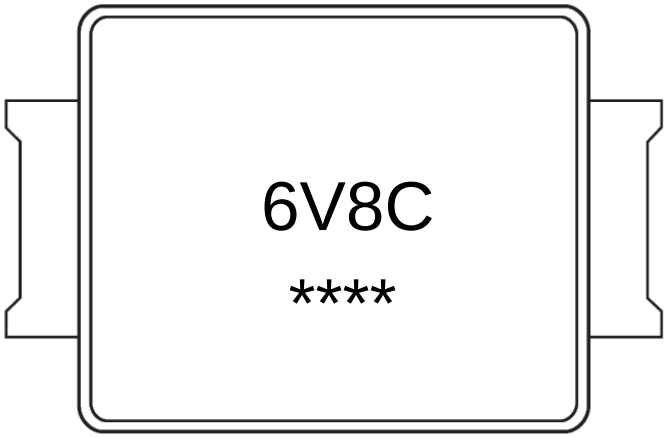
UNIT		A	C	D	E	H_E	e	g	∠
mm	max	1.3	0.26	4.4	3.7	5.5	2.2	1.0	9°
	min	1.1	0.18	4.2	3.5	5.1	1.9		
mil	max	51	10	173	146	216	86	40	
	min	43	7	165	138	200	75		

, M y ƒ / Marking Instructions



, M y ƒ / Marking Instructions

E â Å - ~ £



ª ¢ y

<) y º Z W A

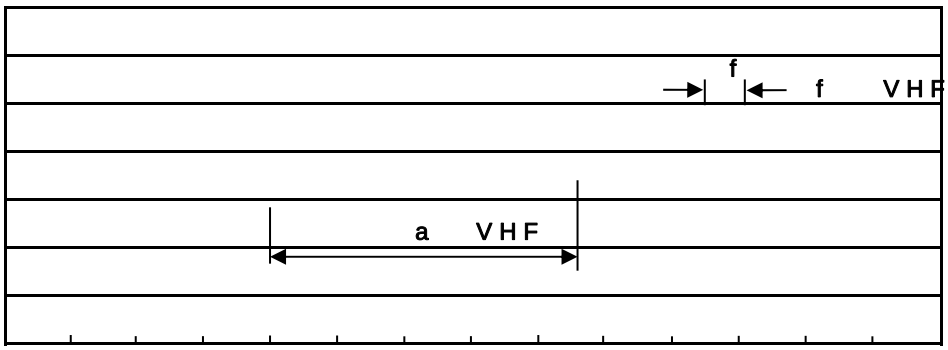
**** y ÿ D Z W A k š ÿ D Z J

Note:

<) y Product Type Code

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

š WD t … • Ž ¢ (x /) / : K S V K X G Z [X K 6 X U L O R K L U X / 8 8 K L R U] 9 U R J K X O T M 6



7 L P H `ã† ! a)À«Á •bX B‘`F

ª ¢ y

1o• Ä 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 Æmm³)		
	Units/Reel / --	Reels/Inner Box -- /-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Reel	Inner Box×	Outer Box1ç
SMBF	5,000	2	10,000	7	70,000	13 s ×12	336X336X40	380X335X366

„ Ð y ƒ / Notices