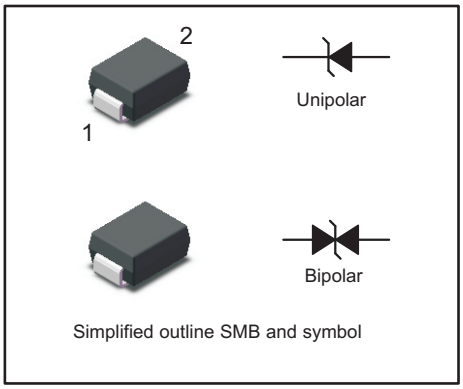
Surface mount transient voltage suppressor power 600 watts
Stand-Off Voltage：5.0 V~440 V

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Simplified outline SMB and symbol

FEATURES

- For surface mounted applications in order to optimize board space.
- Low profile package
- Glass passivated junction
- Low inductance
- Plastic package has Underwriters Laboratory Flammability

MECHANICAL DATA

- Case: SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.1g / 0.0034oz

Maximum Ratings and Electrical characteristics
Ratings at 25°C ambient temperature unless otherwise specified.

Parameter		Symbol	Value	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
ESD Voltage per IEC61000-4-2	Contact Air	V_{ESD1} V_{ESD2}	±30 ±30	kV
Typical Thermal Resistance Junction to Ambient(Note 5)		$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	43 9 18	° C/W
Operating Junction Temperature and Storage Temperature Range		T_j, T_{stg}	-55 ~ +150	°C

NOTES:

1. Non-repetitive current pulse, per Fig.3 and derated above T_A = 25°C per Fig. 2.
2. Mounted on 5 mm^2 (0.13mm thick) land areas.
3. Measured on 8.3ms,single half sine-wave or equivalent square wave,duty cycle=4 pulses per minute maximum.
4. Peak pulse power waveform is 10/1000μS.
5. P.C.B. mounted with 1.5" X 1.5" (3.81 X 3.81 cm) copper pad areas..

Characteristics at Ta = 25°C

Table 1

Type		Marking		V_{RMW}	Breakdown Voltage		Test Current	Max. Reverse Leakage	Max.Clamp Voltage	Max. Peak Pulse Current
					V_{BR} @ I_T		I_T	IR@VR	V_C @ I_{PP}	I_{PP}
					Min	Max				
UNI	BI	UNI	BI	V	V	V	mA	μA	V	A
SMBJ5.0A	SMBJ5.0CA	KE	AE	5	6.4	7	10	800	9.2	65.3
SMBJ6.0A	SMBJ6.0CA	KG	AG	6	6.67	7.37	10	800	10.3	58.3
SMBJ6.5A	SMBJ6.5CA	KK	AK	6.5	7.22	7.98	10	500	11.2	53.6
SMBJ7.0A	SMBJ7.0CA	KM	AM	7	7.78	8.6	10	200	12	50
SMBJ7.5A	SMBJ7.5CA	KP	AP	7.5	8.33	9.21	1	100	12.9	46.6
SMBJ8.0A	SMBJ8.0CA	KR	AR	8	8.89	9.83	1	50	13.6	44.2
SMBJ8.5A	SMBJ8.5CA	KT	AT	8.5	9.44	10.4	1	20	14.4	41.7
SMBJ9.0A	SMBJ9.0CA	KV	AV	9	10	11.1	1	10	15.4	39
SMBJ10A	SMBJ10CA	KX	AX	10	11.1	12.3	1	5	17	35.3
SMBJ11A	SMBJ11CA	KZ	AZ	11	12.2	13.5	1	1	18.2	33
SMBJ12A	SMBJ12CA	LE	BE	12	13.3	14.7	1	1	19.9	30.2
SMBJ13A	SMBJ13CA	LG	BG	13	14.4	15.9	1	1	21.5	28
SMBJ14A	SMBJ14CA	LK	BK	14	15.6	17.2	1	1	23.2	25.9
SMBJ15A	SMBJ15CA	LM	BM	15	16.7	18.5	1	1	24.4	24.6
SMBJ16A	SMBJ16CA	LP	BP	16	17.8	19.7	1	1	26	23.1
SMBJ17A	SMBJ17CA	LR	BR	17	18.9	20.9	1	1	27.6	21.8
SMBJ18A	SMBJ18CA	LT	BT	18	20	22.1	1	1	29.2	20.6
SMBJ20A	SMBJ20CA	LV	BV	20	22.2	24.5	1	1	32.4	18.6
SMBJ22A	SMBJ22CA	LX	BX	22	24.4	26.9	1	1	35.5	16.9
SMBJ24A	SMBJ24CA	LZ	BZ	24	26.7	29.5	1	1	38.9	15.5
SMBJ26A	SMBJ26CA	ME	CE	26	28.9	31.9	1	1	42.1	14.3
SMBJ28A	SMBJ28CA	MG	CG	28	31.1	34.4	1	1	45.4	13.3
SMBJ30A	SMBJ30CA	MK	CK	30	33.3	36.8	1	1	48.4	12.4
SMBJ33A	SMBJ33CA	MM	CM	33	36.7	40.6	1	1	53.3	113
SMBJ36A	SMBJ36CA	MP	CP	36	40	44.2	1	1	58.1	10.4
SMBJ40A	SMBJ40CA	MR	CR	40	44.4	49.1	1	1	64.5	9.3
SMBJ43A	SMBJ43CA	MT	CT	43	47.8	52.8	1	1	69.4	8.7
SMBJ45A	SMBJ45CA	MV	CV	45	50	55.3	1	1	72.7	8.3
SMBJ48A	SMBJ48CA	MX	CX	48	53.3	58.9	1	1	77.4	7.8
SMBJ51A	SMBJ51CA	MZ	CZ	51	56.7	62.7	1	1	82.4	7.3
SMBJ54A	SMBJ54CA	NE	DE	54	60	66.3	1	1	87.1	6.9
SMBJ58A	SMBJ58CA	NG	DG	58	64.4	71.2	1	1	93.6	6.5
SMBJ60A	SMBJ60CA	NK	DK	60	66.7	73.7	1	1	96.8	6.2
SMBJ64A	SMBJ64CA	NM	DM	64	71.1	78.6	1	1	103	5.9
SMBJ70A	SMBJ70CA	NP	DP	70	77.8	86	1	1	113	5.3
SMBJ75A	SMBJ75CA	NR	DR	75	83.3	92.1	1	1	121	5
SMBJ78A	SMBJ78CA	NT	DT	78	86.7	95.8	1	1	126	4.8
SMBJ85A	SMBJ85CA	NV	DV	85	94.4	104	1	1	137	4.4
SMBJ90A	SMBJ90CA	NX	DX	90	100	111	1	1	146	4.1
SMBJ100A	SMBJ100CA	NZ	DZ	100	111	123	1	1	162	3.7
SMBJ110A	SMBJ110CA	PE	EE	110	122	135	1	1	177	3.4
SMBJ120A	SMBJ120CA	PG	EG	120	133	147	1	1	193	3.1
SMBJ130A	SMBJ130CA	PK	EK	130	144	159	1	1	209	2.9
SMBJ150A	SMBJ150CA	PM	EM	150	167	185	1	1	243	2.5
SMBJ160A	SMBJ160CA	PP	EP	160	178	197	1	1	259	2.3
SMBJ170A	SMBJ170CA	PR	ER	170	189	209	1	1	275	2.2
SMBJ180A	SMBJ180CA	PT	ET	180	201	222	1	1	292	2.1

Type		Marking		V_{RMW}	Breakdown Voltage		Test Current	Max. Reverse Leakage	Max.Clamp Voltage	Max. Peak Pulse Current
					V_{BR} @ I_T		I_T	IR@VR	V_C @ I_{PP}	I_{PP}
					Min	Max				
UNI	BI	UNI	BI	V	V	V	mA	μA	V	A
SMBJ188A	SMBJ188CA	PB	EB	188	209	231	1	1	304	2
SMBJ200A	SMBJ200CA	PV	EV	200	224	247	1	1	324	1.9
SMBJ220A	SMBJ220CA	PX	EX	220	246	272	1	1	356	1.7
SMBJ250A	SMBJ250CA	PZ	EZ	250	279	309	1	1	405	1.5
SMBJ300A	SMBJ300CA	QE	FE	300	335	371	1	1	486	1.3
SMBJ350A	SMBJ350CA	QG	FG	350	391	432	1	1	567	1.1
SMBJ400A	SMBJ400CA	QK	FK	400	447	494	1	1	648	0.9
SMBJ440A	SMBJ440CA	QM	FM	440	492	543	1	1	713	0.9

Fig.1 Peak Pulse Power Rating Curve

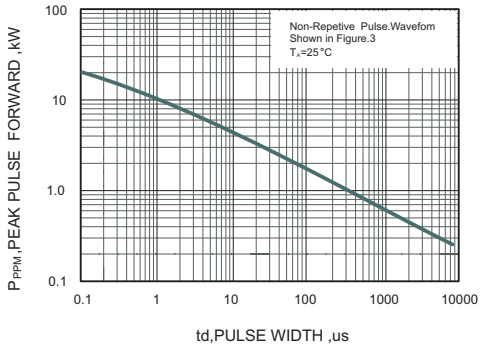


Fig.2 Forward Current Derating Curve

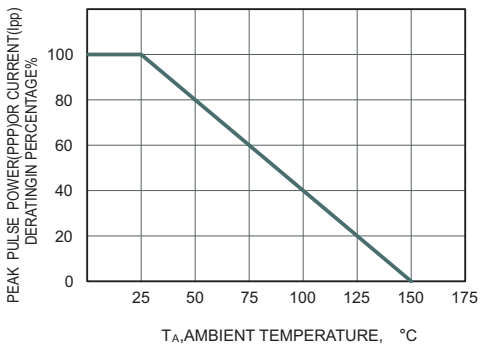


Fig.3 Pulse Waveform

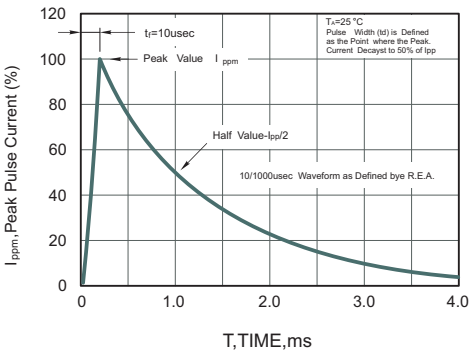
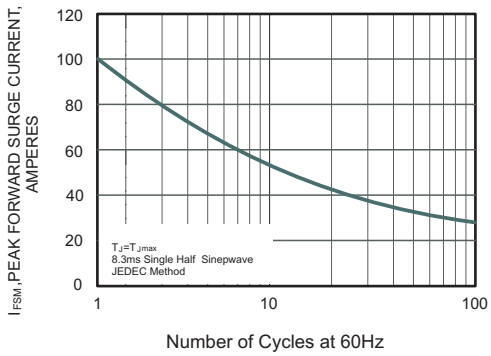
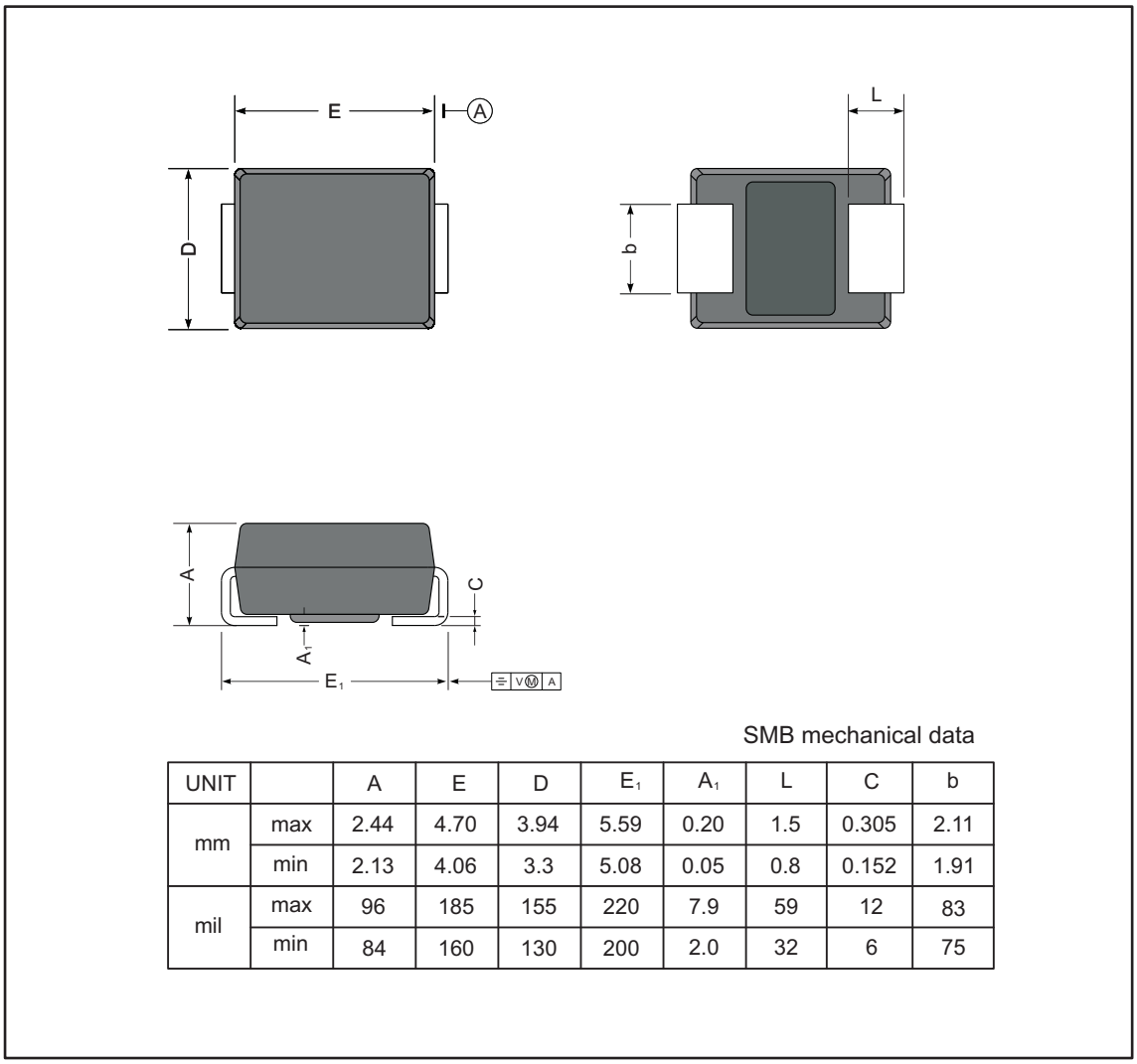


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

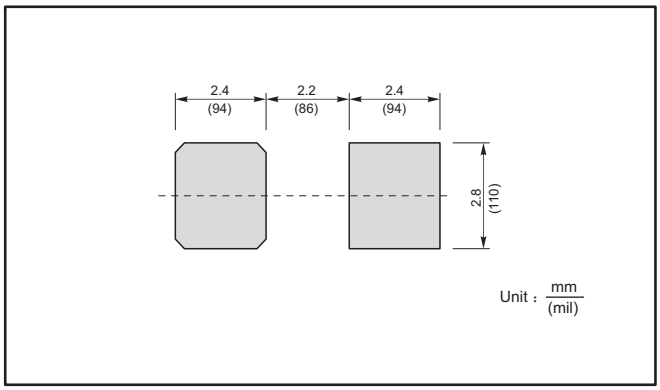
Plastic surface mounted package; 2 leads SMB



SMB mechanical data

UNIT		A	E	D	E_1	A_1	L	C	b
mm	max	2.44	4.70	3.94	5.59	0.20	1.5	0.305	2.11
	min	2.13	4.06	3.3	5.08	0.05	0.8	0.152	1.91
mil	max	96	185	155	220	7.9	59	12	83
	min	84	160	130	200	2.0	32	6	75

The recommended mounting pad size



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