Surface mount transient voltage suppressor power 400 watts

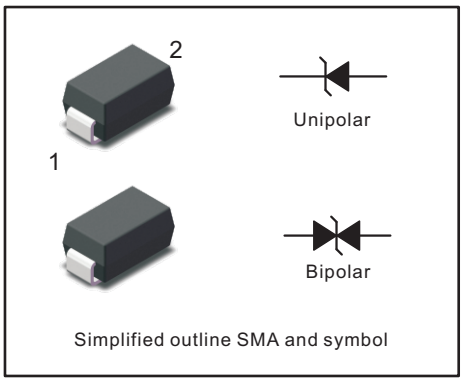
Stand-Off Voltage： 5.8V~468V

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Simplified outline SMA and symbol

MECHANICAL DATA

- Case: SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.055g / 0.002oz

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

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation on T_A=25°C (Note 1,2,4, Fig1)	P_{PPM}	400	W
Peak Forward Surge Current (Note 3,Fig 4)	I_{FSM} (UNI)	60	A
Peak Pulse Current on 10/1000 us waveform (Note 1, Fig 3)	I_{PPM}	see Table 1	A
ESD Voltage per IEC6100-4-2 Contact Air	V_{ESD1} V_{ESD2}	±30 ±30	kV
Typical Thermal Resistance Junction to Ambient(Note 2)	$R_{\theta JA}$	120	°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 5mm^2 copper pads to each terminal.
3. Peak Forward Surge Current : 8.3ms single half sine-wave Superimposed on rated load (JEDEC method).
4. Peak pulse power waveform is 10/1000μS.

Characteristics at Ta = 25°C

Table 1

Type		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current	Package	
			V_{BR} @ I_T						SMA	
		V_{RMW}	Min	Max	I_T	I_R @ V_{RWM}	V_C @ I_{PP}	I_{PP}	Device Marking Ccode	
UNI	BI	V	V	V	mA	μA	V	A	UNI	BI
P4SMA6.8A	P4SMA6.8CA	5.8	6.45	7.14	10	1000	10.5	39	6V8A	6V8C
P4SMA7.5A	P4SMA7.5CA	6.4	7.13	7.88	10	500	11.3	36.3	7V5A	7V5C
P4SMA8.2A	P4SMA8.2CA	7.02	7.79	8.61	10	200	12.1	33.9	8V2A	8V2C
P4SMA9.1A	P4SMA9.1CA	7.78	8.65	9.55	1	50	13.4	30.6	9V1A	9V1C
P4SMA10A	P4SMA10CA	8.55	9.5	10.5	1	10	14.5	28.3	10A	10C
P4SMA11A	P4SMA11CA	9.4	10.5	11.6	1	5	15.6	26.3	11A	11C
P4SMA12A	P4SMA12CA	10.2	11.4	12.6	1	5	16.7	24.6	12A	12C
P4SMA13A	P4SMA13CA	11.1	12.4	13.7	1	1	18.2	22.5	13A	13C
P4SMA15A	P4SMA15CA	12.8	14.3	15.8	1	1	21.2	19.3	15A	15C
P4SMA16A	P4SMA16CA	13.6	15.2	16.8	1	1	22.5	18.2	16A	16C
P4SMA18A	P4SMA18CA	15.3	17.1	18.9	1	1	25.5	16.1	18A	18C
P4SMA20A	P4SMA20CA	17.1	19	21	1	1	27.7	14.8	20A	20C
P4SMA22A	P4SMA22CA	18.8	20.9	23.1	1	1	30.6	13.4	22A	22C
P4SMA24A	P4SMA24CA	20.5	22.8	25.2	1	1	33.2	12.3	24A	24C
P4SMA27A	P4SMA27CA	23.1	25.7	28.4	1	1	37.5	10.9	27A	27C
P4SMA30A	P4SMA30CA	25.6	28.5	31.5	1	1	41.4	9.9	30A	30C
P4SMA33A	P4SMA33CA	28.2	31.4	34.7	1	1	45.7	9	33A	33C
P4SMA36A	P4SMA36CA	30.8	34.2	37.8	1	1	49.9	8.2	36A	36C
P4SMA39A	P4SMA39CA	33.3	37.1	41	1	1	53.9	7.6	39A	39C
P4SMA43A	P4SMA43CA	36.8	40.9	45.2	1	1	59.3	6.9	43A	43C
P4SMA47A	P4SMA47CA	40.2	44.7	49.4	1	1	64.8	6.3	47A	47C
P4SMA51A	P4SMA51CA	43.6	48.5	53.6	1	1	70.1	5.8	51A	51C
P4SMA56A	P4SMA56CA	47.8	53.2	58.8	1	1	77	5.3	56A	56C
P4SMA62A	P4SMA62CA	53	58.9	65.1	1	1	85	4.8	62A	62C
P4SMA68A	P4SMA68CA	58.1	64.6	71.4	1	1	92	4.5	68A	68C
P4SMA75A	P4SMA75CA	64.1	71.3	78.8	1	1	103	4	75A	75C
P4SMA82A	P4SMA82CA	70.1	77.9	86.1	1	1	113	3.6	82A	82C
P4SMA91A	P4SMA91CA	77.8	86.5	95.5	1	1	125	3.3	91A	91C
P4SMA100A	P4SMA100CA	85.5	95	105	1	1	137	3	100A	100C
P4SMA110A	P4SMA110CA	94	105	116	1	1	152	2.7	110A	110C
P4SMA120A	P4SMA120CA	102	114	126	1	1	165	2.5	120A	120C
P4SMA130A	P4SMA130CA	111	124	137	1	1	179	2.3	130A	130C
P4SMA150A	P4SMA150CA	128	143	158	1	1	207	2	150A	150C
P4SMA160A	P4SMA160CA	136	152	168	1	1	219	1.9	160A	160C
P4SMA170A	P4SMA170CA	145	162	179	1	1	234	1.8	170A	170C
P4SMA180A	P4SMA180CA	154	171	189	1	1	246	1.7	180A	180C
P4SMA200A	P4SMA200CA	171	190	210	1	1	274	1.5	200A	200C
P4SMA220A	P4SMA220CA	185	209	231	1	1	328	1.3	220A	220C
P4SMA250A	P4SMA250CA	214	237	263	1	1	344	1.2	250A	250C
P4SMA300A	P4SMA300CA	256	285	315	1	1	414	1	300A	300C
P4SMA350A	P4SMA350CA	300	332	368	1	1	482	0.9	350A	350C
P4SMA400A	P4SMA400CA	342	380	420	1	1	548	0.8	400A	400C
P4SMA440A	P4SMA440CA	376	418	462	1	1	602	0.7	440A	440C
P4SMA480A	P4SMA480CA	408	456	504	1	1	658	0.6	480A	480C
P4SMA510A	P4SMA510CA	434	485	535	1	1	698	0.6	510A	510C
P4SMA530A	P4SMA530CA	451	503.5	556.5	1	1	725	0.6	530A	530C
P4SMA540A	P4SMA540CA	460	513	567	1	1	740	0.5	540A	540C
P4SMA550A	P4SMA550CA	468	522.5	577.5	1	1	760	0.5	550A	550C

Fig.1 Peak Pulse Power Rating Curve

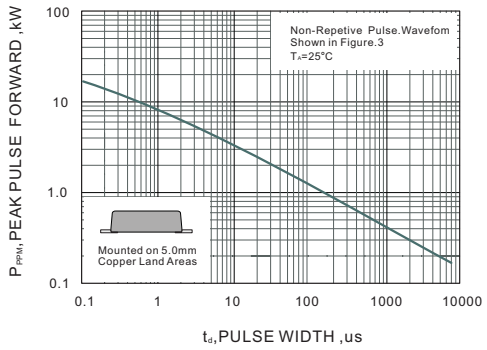


Fig.2 Forward Current Derating Curve

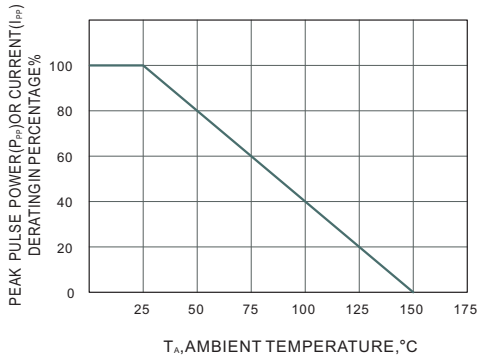


Fig.3 Pulse Waveform

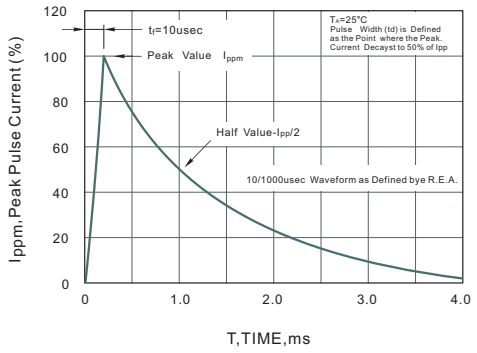
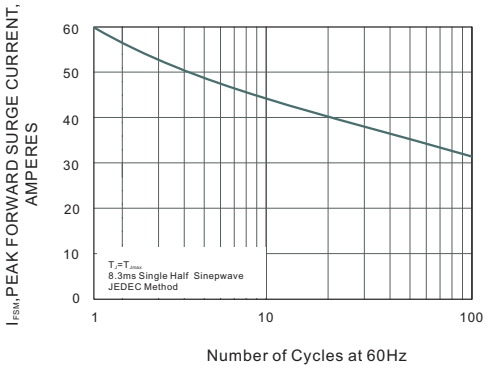


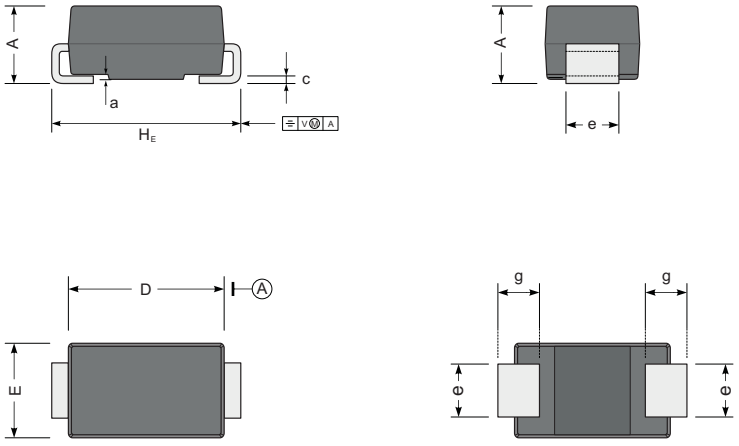
Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

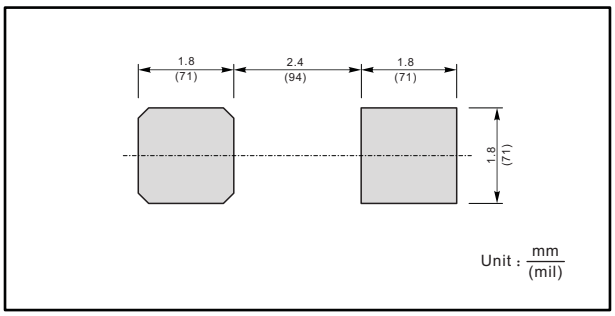
Plastic surface mounted package; 2 leads

SMA



UNIT		A	D	E	H_E	c	e	g	a
mm	max	2.2	4.5	2.7	5.2	0.31	1.6	1.5	0.3
	min	1.9	4.0	2.3	4.7	0.15	1.3	0.9	
mil	max	87	181	106	205	12	63	59	12
	min	75	157	91	185	6	51	35	

The recommended mounting pad size



Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

JINGDAO:

BZX84C4V7A ES1JW F7N60L US3GC DS36W MB14S MB26F MBR10150DT MM3Z9V1W RS3MC
SS810C PS14HS RS2MB DS310W FMB6F-10 MM1Z27W SS28 1SMA4732A BZX84C2V4A MM3Z24W
MM3Z8V2W MBR20200FT MM1Z56W F16N65L MM1W10 MM1Z27BW S1G SS310B TB10F-10 TB120B