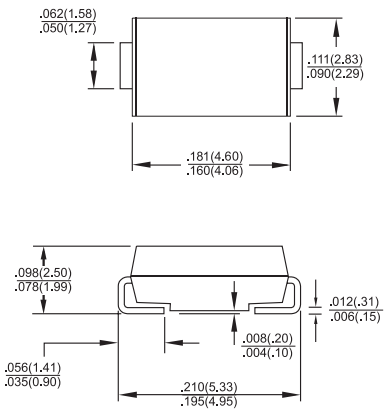
SMAJ5.0CA-SMAJ440CA

Surface mount transient voltage suppressor power 400 watts

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



SMA/DO-214AC

Dimensions in inches and (millimeters)

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)	$R_{\theta JA}$	30	°C/W
Operating Junction Temperature and Storage Temperature Range	T_j, T_{stg}	-65 ~ +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.

DAYA SEMICONDUCTOR

RoHS COMPLIANT

Pb-Free

SMAJ5.0CA-SMAJ440CA

Surface mount transient voltage suppressor power 400 watts

Characteristics at Ta = 25°C

Type		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current	Package SMA Device Marking Ccode	
		V_{RRM}	V_{BR} @ I_T Min	Max	I_T	I_R @ V_{RRM}	V_C @ I_{PP}	I_{PP}		
UNI	BI	V	V	V	mA	μA	V	A	UNI	BI
SMAJ5.0A	SMAJ5.0CA	5	6.4	7	10	800	9.2	43.5	AE	WE
SMAJ6.0A	SMAJ6.0CA	6	6.67	7.37	10	800	10.3	38.8	AG	WG
SMAJ6.5A	SMAJ6.5CA	6.5	7.22	7.98	10	500	11.2	35.7	AK	WK
SMAJ7.0A	SMAJ7.0CA	7	7.78	8.6	10	200	12	33.3	AM	WM
SMAJ7.5A	SMAJ7.5CA	7.5	8.33	9.21	1	100	12.9	31	AP	WP
SMAJ8.0A	SMAJ8.0CA	8	8.89	9.83	1	50	13.6	29.4	AR	WR
SMAJ8.5A	SMAJ8.5CA	8.5	9.44	10.4	1	20	14.4	27.8	AT	WT
SMAJ9.0A	SMAJ9.0CA	9	10	11.1	1	10	15.4	26	AV	WV
SMAJ10A	SMAJ10CA	10	11.1	12.3	1	5	17	23.5	AX	WX
SMAJ11A	SMAJ11CA	11	12.2	13.5	1	1	18.2	22	AZ	WZ
SMAJ12A	SMAJ12CA	12	13.3	14.7	1	1	19.9	20.1	BE	XE
SMAJ13A	SMAJ13CA	13	14.4	15.9	1	1	21.5	18.6	BG	XG
SMAJ14A	SMAJ14CA	14	15.6	17.2	1	1	23.2	17.2	BK	XK
SMAJ15A	SMAJ15CA	15	16.7	18.5	1	1	24.4	16.4	BM	XM
SMAJ16A	SMAJ16CA	16	17.8	19.7	1	1	26	15.4	BP	XP
SMAJ17A	SMAJ17CA	17	18.9	20.9	1	1	27.6	14.5	BR	XR
SMAJ18A	SMAJ18CA	18	20	22.1	1	1	29.2	13.7	BT	XT
SMAJ20A	SMAJ20CA	20	22.2	24.5	1	1	32.4	12.3	BV	XV
SMAJ22A	SMAJ22CA	22	24.4	26.9	1	1	35.5	11.3	BX	XX
SMAJ24A	SMAJ24CA	24	26.7	29.5	1	1	38.9	10.3	BZ	XZ
SMAJ26A	SMAJ26CA	26	28.9	31.9	1	1	42.1	9.5	CE	YE
SMAJ28A	SMAJ28CA	28	31.1	34.4	1	1	45.4	8.8	CG	YG
SMAJ30A	SMAJ30CA	30	33.3	36.8	1	1	48.4	8.3	CK	YK
SMAJ33A	SMAJ33CA	33	36.7	40.6	1	1	53.3	7.5	CM	YM
SMAJ36A	SMAJ36CA	36	40	44.2	1	1	58.1	6.9	CP	YP
SMAJ40A	SMAJ40CA	40	44.4	49.1	1	1	64.5	6.2	CR	YR
SMAJ43A	SMAJ43CA	43	47.8	52.8	1	1	69.4	5.8	CT	YT
SMAJ45A	SMAJ45CA	45	50	55.3	1	1	72.7	5.5	CV	YV
SMAJ48A	SMAJ48CA	48	53.3	58.9	1	1	77.4	5.2	CX	YX
SMAJ51A	SMAJ51CA	51	56.7	62.7	1	1	82.4	4.9	CZ	YZ
SMAJ54A	SMAJ54CA	54	60	66.3	1	1	87.1	4.6	RE	ZE
SMAJ58A	SMAJ58CA	58	64.4	71.2	1	1	93.6	4.3	RG	ZG
SMAJ60A	SMAJ60CA	60	66.7	73.7	1	1	96.8	4.1	RK	ZK
SMAJ64A	SMAJ64CA	64	71.1	78.6	1	1	103	3.9	RM	ZM
SMAJ70A	SMAJ70CA	70	77.8	86	1	1	113	3.5	RP	ZP
SMAJ75A	SMAJ75CA	75	83.3	92.1	1	1	121	3.3	RR	ZR
SMAJ78A	SMAJ78CA	78	86.7	95.8	1	1	126	3.2	RT	ZT
SMAJ85A	SMAJ85CA	85	94.4	104	1	1	137	2.9	RV	ZV
SMAJ90A	SMAJ90CA	90	100	111	1	1	146	2.7	RX	ZX
SMAJ100A	SMAJ100CA	100	111	123	1	1	162	2.5	RZ	ZZ
SMAJ110A	SMAJ110CA	110	122	135	1	1	177	2.3	SE	VE
SMAJ120A	SMAJ120CA	120	133	147	1	1	193	2.1	SG	VG
SMAJ130A	SMAJ130CA	130	144	159	1	1	209	1.9	SK	VK
SMAJ150A	SMAJ150CA	150	167	185	1	1	243	1.6	SM	VM
SMAJ160A	SMAJ160CA	160	178	197	1	1	259	1.5	SP	VP
SMAJ170A	SMAJ170CA	170	189	209	1	1	275	1.5	SR	VR
SMAJ180A	SMAJ180CA	180	201	222	1	1	292	1.4	ST	VT
SMAJ200A	SMAJ200CA	200	224	247	1	1	324	1.2	SV	VV
SMAJ220A	SMAJ220CA	220	246	272	1	1	356	1.1	SX	VX
SMAJ250A	SMAJ250CA	250	279	309	1	1	405	1	SZ	VZ
SMAJ300A	SMAJ300CA	300	335	371	1	1	486	0.8	TE	UE
SMAJ350A	SMAJ350CA	350	391	432	1	1	567	0.7	TG	UG
SMAJ400A	SMAJ400CA	400	447	494	1	1	648	0.6	TK	UK
SMAJ440A	SMAJ440CA	440	492	543	1	1	713	0.6	TM	UM

Fig.1 Peak Pulse Power Rating Curve

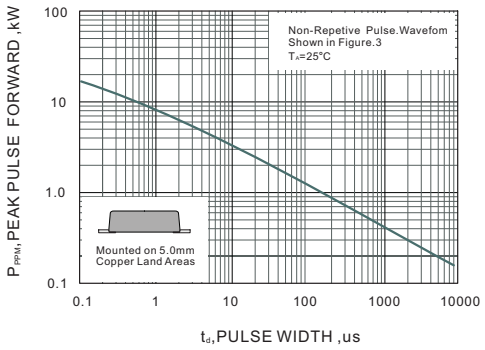


Fig.2 Forward Current Derating Curve

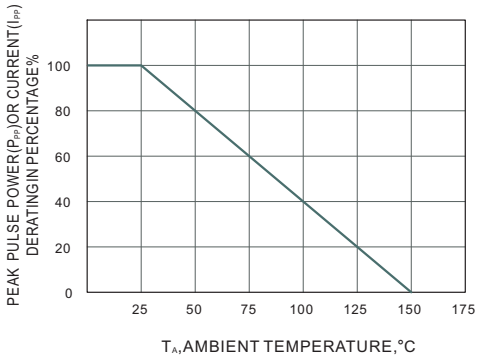


Fig.3 Pulse Waveform

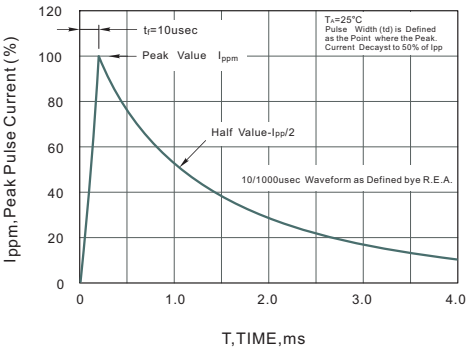
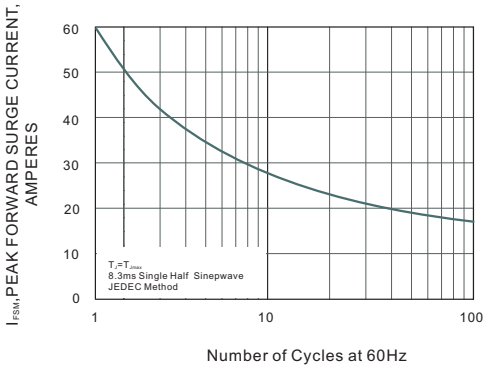



Fig.4 Maximum Non-Repetitive Peak Forward Surge Current