

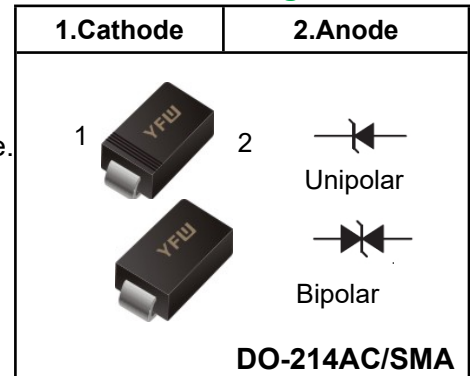
Surface mount transient voltage suppressor power 400 watts

Stand-Off Voltage: 5.0V~440V

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



MECHANICAL DATA

- ◆Case: DO-214AC/SMA
- ◆Terminals: Solderable per MIL-STD-750, Method 2026
- ◆Approx. Weight: 0.07g / 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 TA=25°C (Note 1,2,5, Fig1)		P _{PPM}	400	W
Peak Forward Surge Current (Note3, Note4)		I _{FSM} (UNI)	40	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	V _{ESD1}	±30	kV
	Air	V _{ESD2}	±30	
Typical Junction Capacitance at VR=4V, f=1MHz		C _j	390	pF
Typical Thermal Resistance Junction to Ambient(Note 2)		R _{θJA}	70	°C/W
Operating Junction Temperature and Storage Temperature Range		T _J , T _{STG}	-55 to +150	°C

NOTES:

1. Non-repetitive current pulse, per Fig.3 and derated above T_A = 25°C per Fig. 2.
2. Mounted on 5mm² 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

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

Fig.1 Peak Pulse Power Rating Curve

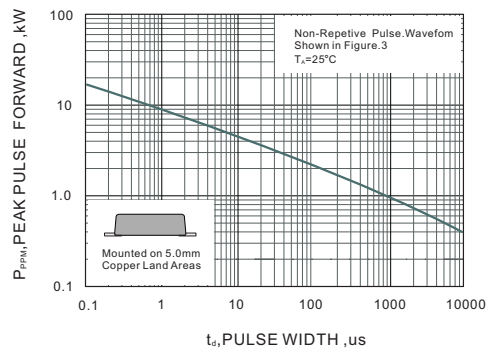


Fig.2 Forward Current Derating Curve

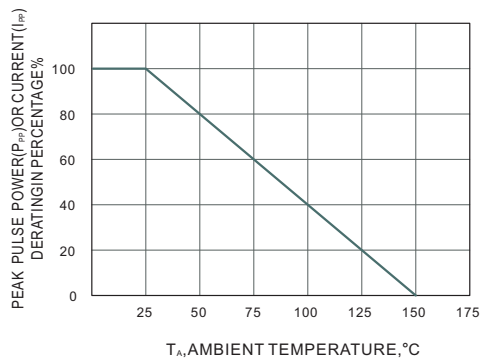


Fig.3 Pulse Waveform

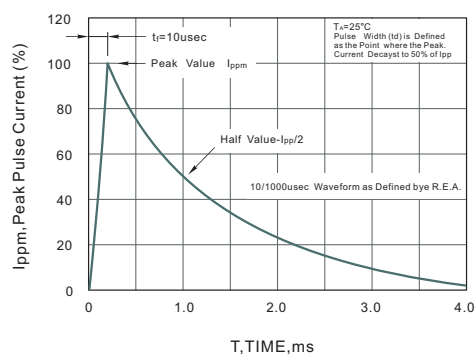
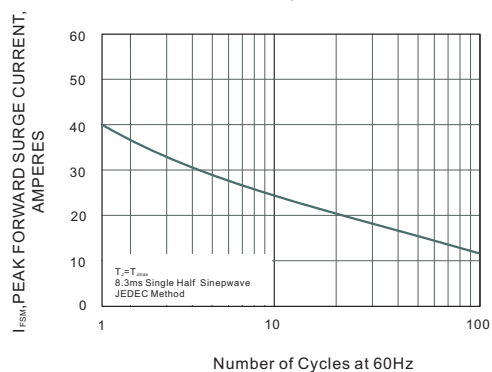


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



Marking Diagram



Ordering information

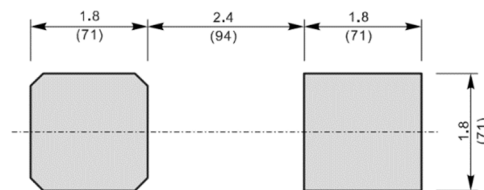
Package	Packing Description	Packing Quantity
DO-214AC SMA	Tape/Reel, 13" reel	5000PCS/Reel 50000PCS/Carton

Package Dimensions

DO-214AC SMA

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	1.9	2.45	75	96
D	4.0	4.5	157	181
E	2.5	2.8	100	110
H _E	4.7	5.2	185	205
c	0.15	0.31	6	12
e	1.3	1.8	51	71
g	0.9	1.5	35	59
b	0.05	0.2	2	7.9
a	0.3		12	

The recommended mounting pad size



Unit : $\frac{\text{mm}}{(\text{mil})}$

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