

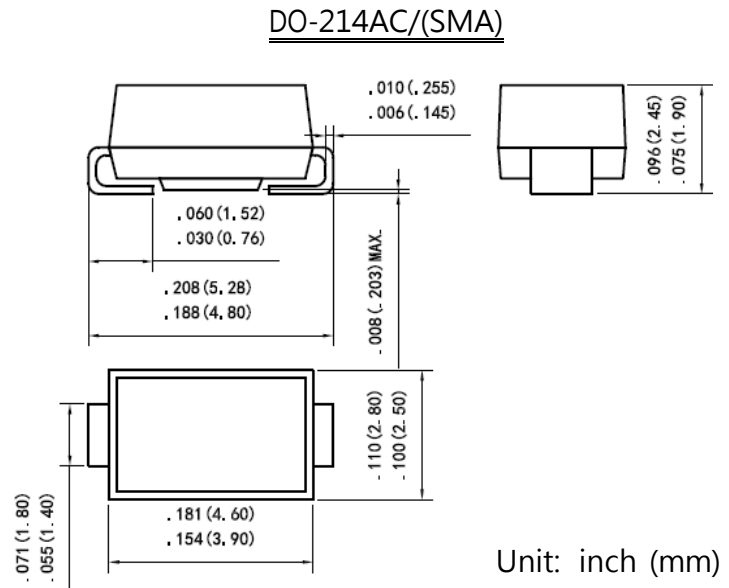
Surface Mount Transient Voltage Suppressor Rectifiers

Features :

- Glass passivated chip
- 400 W peak pulse power capability with a 10/1000 us waveform, repetitive rate (duty cycle):0.01 %
- Excellent clamping capability
- Low reverse leakage
- Very fast response time
- Lead and body according with RoHS standard

Mechanical Data :

- Case:DO-214AC/(SMA) Molded plastic
- Lead: Solderable per MIL-STD-750, method 2026
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode end except Bipolar
- Mounting position: Any



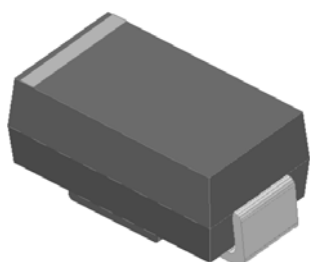
Maximum Ratings & Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	Value	Unit
Peak power dissipation with a 10/1000 us waveform ⁽¹⁾	P_{PP}	400	W
Peak pulse current with a 10/1000 us waveform ⁽¹⁾	I_{PP}	See Next Table	A
Power dissipation on infinite heatsink at $T_A = 50^\circ\text{C}$	P_D	3.3	W
Peak forward surge current, 8.3 ms single half sinewave unidirectional only ⁽²⁾	I_{FSM}	40	A
Typical thermal resistance junction to lead	$R_{\theta JL}$	30	$^\circ\text{C/W}$
Typical thermal resistance junction to ambient	$R_{\theta JA}$	120	$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J \cdot T_{STG}$	-65 to +150	$^\circ\text{C}$

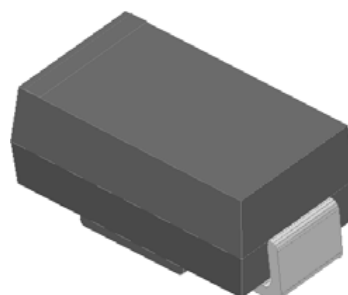
Note:

- 1) Non-repetitive current pulse per Fig.5 and derated above $T_A = 25^\circ\text{C}$ per Fig.1 ;
- 2) Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum

PIN Configuration



Uni-directional



Bi-directional

Part Number		Device Marking Code		Reverse Stand-off Voltage	Breakdown Voltage $V_{BR} @ I_T$		Test Current	Max. Clamping Voltage @ I_{PP}	Max. Peak Pulse Current	Max. Reverse Leakage @ V_{RWM}
UNI-POLAR	BI-POLAR	UNI	BI	$V_{RWM}(V)$	Min.(V)	Max.(V)	$I_T(mA)$	$V_{C MAX.}(V)$	$I_{PP}(A)$	$I_R(\mu A)$
TV04A5V0J-G	TV04A5V0JB-G	AE	WE	5.0	6.40	7.00	10	9.2	43.50	800
TV04A6V0J-G	TV04A6V0JB-G	AG	WG	6.0	6.67	7.37	10	10.3	38.80	800
TV04A6V5J-G	TV04A6V5JB-G	AK	WK	6.5	7.22	7.98	10	11.2	35.70	500
TV04A7V0J-G	TV04A7V0JB-G	AM	WM	7.0	7.78	8.60	10	12.0	33.30	200
TV04A7V5J-G	TV04A7V5JB-G	AP	WP	7.5	8.33	9.21	1	12.9	31.00	100
TV04A8V0J-G	TV04A8V0JB-G	AR	WR	8.0	8.89	9.83	1	13.6	29.40	50
TV04A8V5J-G	TV04A8V5JB-G	AT	WT	8.5	9.44	10.40	1	14.4	27.80	20
TV04A9V0J-G	TV04A9V0JB-G	AV	WV	9.0	10.00	11.10	1	15.4	26.00	10
TV04A100J-G	TV04A100JB-G	AX	WX	10.0	11.10	12.30	1	17.0	23.50	5
TV04A110J-G	TV04A110JB-G	AZ	WZ	11.0	12.20	13.50	1	18.2	22.00	1
TV04A120J-G	TV04A120JB-G	BE	XE	12.0	13.30	14.70	1	19.9	20.10	1
TV04A130J-G	TV04A130JB-G	BG	XG	13.0	14.40	15.90	1	21.5	18.60	1
TV04A140J-G	TV04A140JB-G	BK	XK	14.0	15.60	17.20	1	23.2	17.20	1
TV04A150J-G	TV04A150JB-G	BM	XM	15.0	16.70	18.50	1	24.4	16.40	1
TV04A160J-G	TV04A160JB-G	BP	XP	16.0	17.80	19.70	1	26.0	15.40	1
TV04A170J-G	TV04A170JB-G	BR	XR	17.0	18.90	20.90	1	27.6	14.50	1
TV04A180J-G	TV04A180JB-G	BT	XT	18.0	20.00	22.10	1	29.2	13.70	1
TV04A200J-G	TV04A200JB-G	BV	XV	20.0	22.20	24.50	1	32.4	12.30	1
TV04A220J-G	TV04A220JB-G	BX	XX	22.0	24.40	26.90	1	35.5	11.30	1
TV04A240J-G	TV04A240JB-G	BZ	XZ	24.0	26.70	29.50	1	38.9	10.30	1
TV04A260J-G	TV04A260JB-G	CE	YE	26.0	28.90	31.90	1	42.1	9.50	1
TV04A280J-G	TV04A280JB-G	CG	YG	28.0	31.10	34.40	1	45.4	8.80	1
TV04A300J-G	TV04A300JB-G	CK	YK	30.0	33.50	36.80	1	48.4	8.30	1
TV04A330J-G	TV04A330JB-G	CM	YM	33.0	36.70	40.60	1	53.3	7.50	1
TV04A360J-G	TV04A360JB-G	CP	YP	36.0	40.00	44.20	1	58.1	6.90	1
TV04A400J-G	TV04A400JB-G	CR	YR	40.0	44.40	49.10	1	64.5	6.20	1
TV04A430J-G	TV04A430JB-G	CT	YT	43.0	47.80	52.80	1	69.4	5.80	1
TV04A450J-G	TV04A450JB-G	CV	YV	45.0	50.00	55.30	1	72.7	5.50	1
TV04A480J-G	TV04A480JB-G	CX	YX	48.0	53.30	58.90	1	77.4	5.20	1
TV04A510J-G	TV04A510JB-G	CZ	YZ	51.0	56.70	62.70	1	82.4	4.90	1
TV04A540J-G	TV04A540JB-G	RE	ZE	54.0	60.00	66.30	1	87.1	4.60	1
TV04A580J-G	TV04A580JB-G	RG	ZG	58.0	64.40	71.20	1	93.6	4.30	1
TV04A600J-G	TV04A600JB-G	RK	ZK	60.0	66.70	73.70	1	96.8	4.10	1
TV04A640J-G	TV04A640JB-G	RM	ZM	64.0	71.10	78.60	1	103.0	3.90	1
TV04A700J-G	TV04A700JB-G	RP	ZP	70.0	77.80	86.00	1	113.0	3.50	1
TV04A750J-G	TV04A750JB-G	RR	ZR	75.0	83.30	92.10	1	121.0	3.30	1
TV04A780J-G	TV04A780JB-G	RT	ZT	78.0	86.70	95.80	1	126.0	3.20	1
TV04A850J-G	TV04A850JB-G	RV	ZV	85.0	94.40	104.0	1	137.0	2.90	1
TV04A900J-G	TV04A900JB-G	RX	ZX	90.0	100.0	111.0	1	146.0	2.70	1
TV04A101J-G	TV04A101JB-G	RZ	ZZ	100.0	111.0	123.0	1	162.0	2.50	1
TV04A111J-G	TV04A111JB-G	SE	VE	110.0	122.0	135.0	1	177.0	2.30	1
TV04A121J-G	TV04A121JB-G	SG	VG	120.0	133.0	147.0	1	193.0	2.10	1
TV04A131J-G	TV04A131JB-G	SK	VK	130.0	144.0	159.0	1	209.0	1.90	1
TV04A151J-G	TV04A151JB-G	SM	VM	150.0	167.0	185.0	1	243.0	1.60	1
TV04A161J-G	TV04A161JB-G	SP	VP	160.0	178.0	197.0	1	259.0	1.50	1
TV04A171J-G	TV04A171JB-G	SR	VR	170.0	189.0	209.0	1	275.0	1.50	1
TV04A181J-G	TV04A181JB-G	ST	VT	180.0	201.0	222.0	1	292.0	1.40	1
TV04A191J-G	TV04A191JB-G	SU	YU	190.0	209.0	243.0	1	308.0	1.30	1
TV04A201J-G	TV04A201JB-G	SV	VV	200.0	224.0	247.0	1	324.0	1.20	1
TV04A211J-G	TV04A211JB-G	SW	YW	210.0	231.0	268.0	1	340.0	1.20	1
TV04A221J-G	TV04A221JB-G	GX	VX	220.0	246.0	272.0	1	356.0	1.10	1
TV04A251J-G	TV04A251JB-G	SZ	VZ	250.0	279.0	309.0	1	405.0	1.00	1
TV04A301J-G	TV04A301JB-G	TE	UE	300.0	335.0	371.0	1	486.0	0.80	1
TV04A351J-G	TV04A351JB-G	TG	UG	350.0	391.0	432.0	1	567.0	0.70	1
TV04A401J-G	TV04A401JB-G	TK	UK	400.0	447.0	494.0	1	648.0	0.60	1
TV04A441J-G	TV04A441JB-G	TM	UM	440.0	492.0	543.0	1	713.0	0.60	1
TV04A481J-G	TV04A481JB-G	TP	UP	480.0	536.0	593.0	1	750.0	0.50	1
TV04A521J-G	TV04A521JB-G	TR	UR	520.0	578.0	640.0	1	762.0	0.50	1
TV04A551J-G	TV04A551JB-G	TT	UT	550.0	615.0	680.0	1	860.0	0.40	1

Ratings and Characteristics Curves (TA=25°C unless otherwise noted)

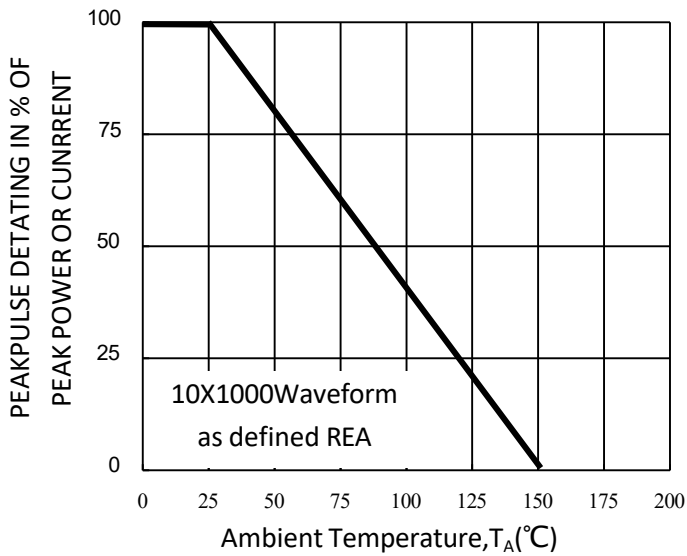


Fig. 1-Pulse Derating Curve

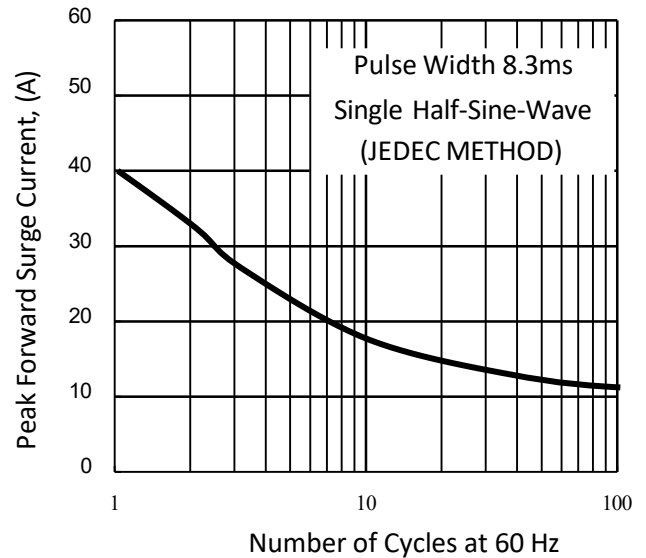


Fig. 2-Maximum Non-Repetitive Surge Current

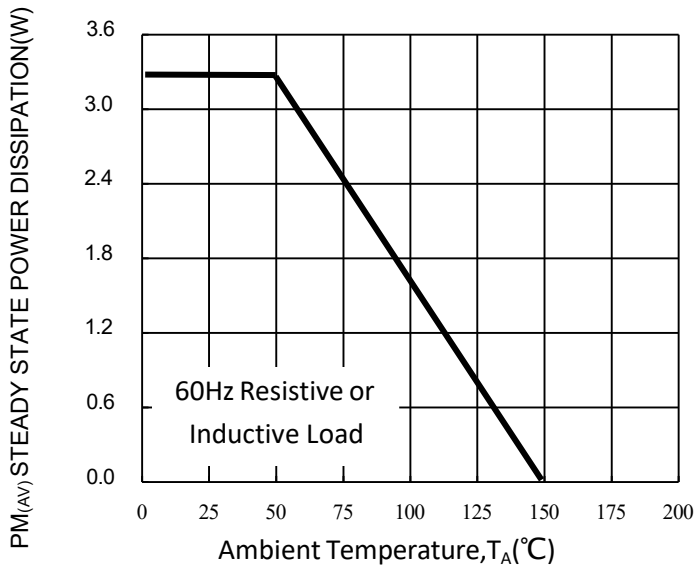


Fig. 3-Steady State Power Derating Curve

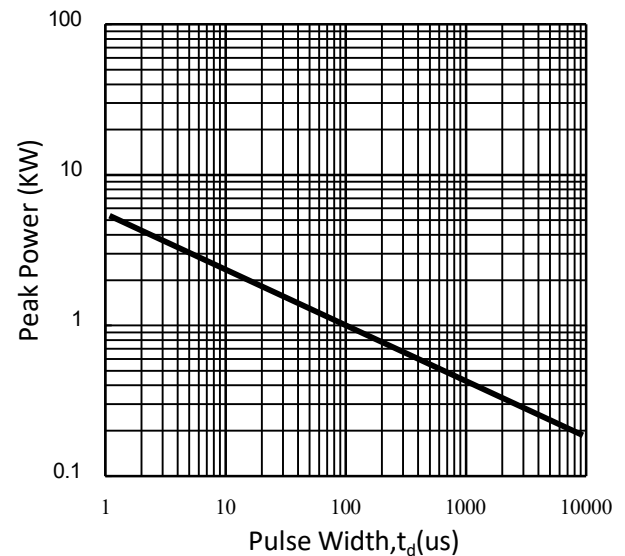


Fig. 4-Peak Pulse Power Rating Curve

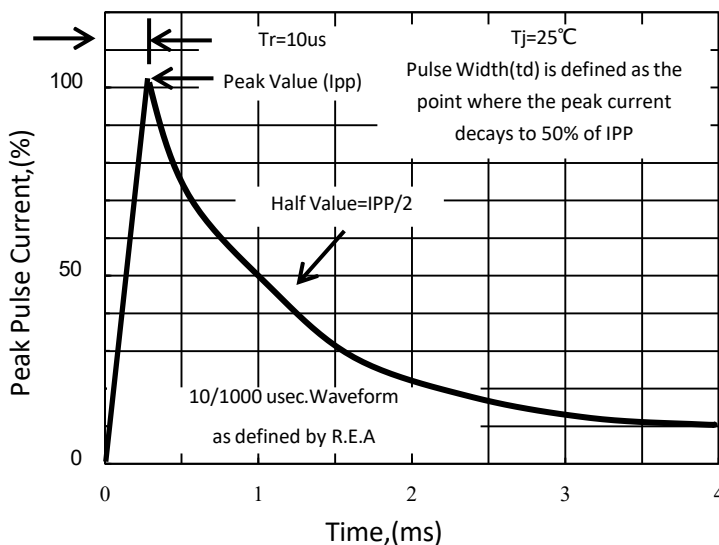


Fig. 5-Pulse Waveform

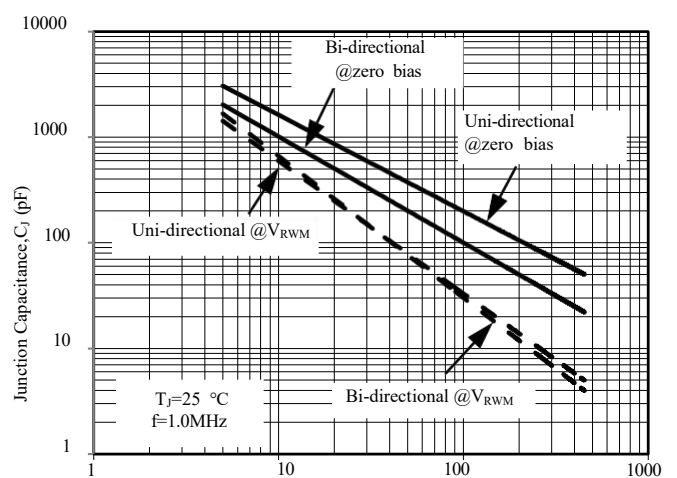
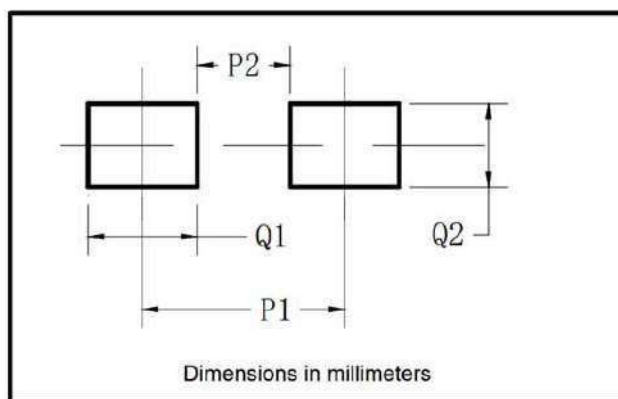


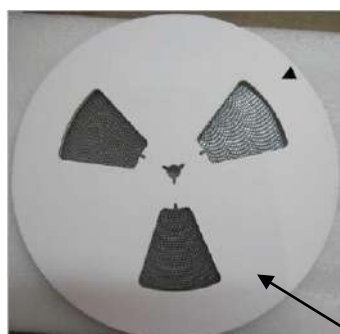
Fig. 6 - Typical Junction Capacitance

■ Suggested Pad Layout

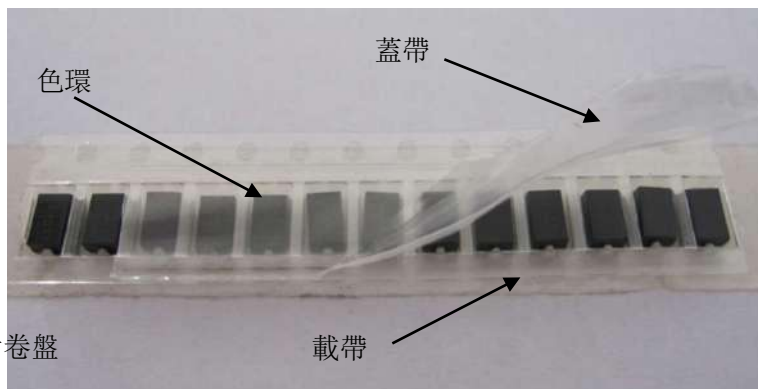


DO-214AC(SMA)	
Dim	Millimeters
P1	4.00
P2	1.50
Q1	2.50
Q2	1.70

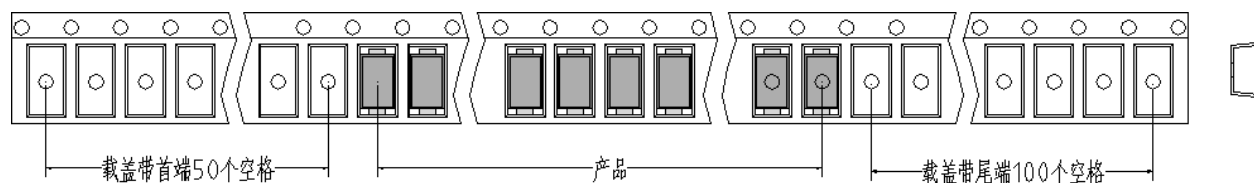
1、SMA 產品包裝外觀：



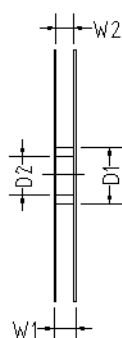
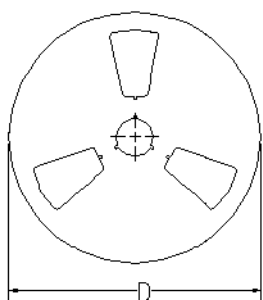
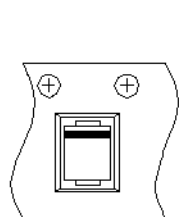
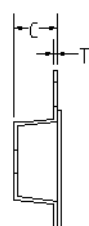
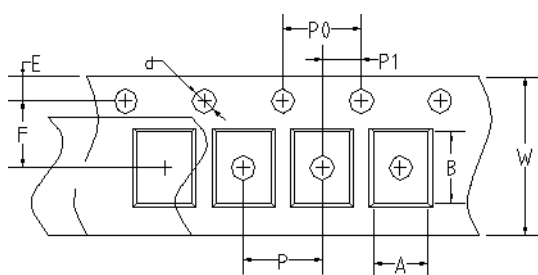
13 寸卷盤



13 寸內盒



2、載蓋帶尺寸：



Symbol	SMA
A	2.79±0.15
B	5.33±0.15
C	2.36±0.15
d	1.55±0.10
D	330.0±1.0
D1	75±1.0
D2	13.5±1.0
E	1.75±0.10
F	5.50±0.05
P	4.00±0.10
P0	4.00±0.10
P1	2.00±0.10
T	0.30±0.10
W	12.00±0.15
W1	18.1±1.5
W2	13.5±1.0