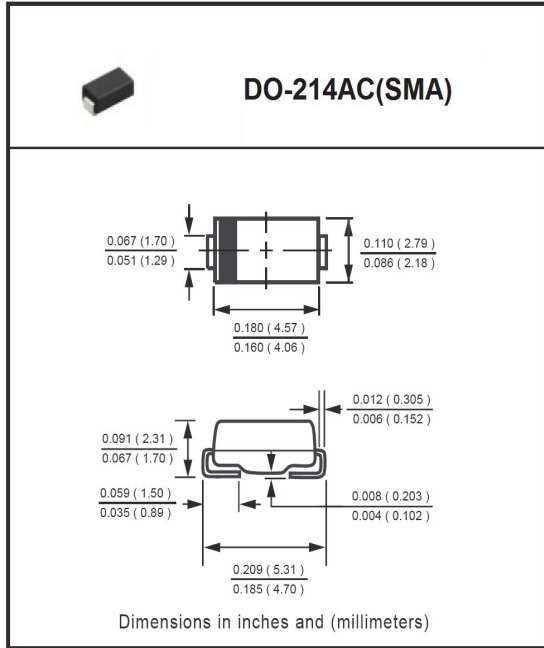


表面贴装瞬间抑制二极管
 隔离电压6.8 --- 550 V
 峰值功率400W

Surface Mount Transient Voltage Suppressors
 Stand-off Voltage 6.8 to 550V
 Peak Pulse Power 400W



特征 Features

- 表面安装应用 For surface mount applications
 - 玻璃钝化芯片 Glass passivated junction
 - 快速响应时间 Very fast response time
 - 优良钳位能力 Excellent clamping capability
 - 最高焊接温度 260°C/10 秒
- High temperature soldering guaranteed:
 260°C/10 seconds at terminals
- 400W 峰值脉冲保护能力(≥78V 为 300W)
 - 400W peak pulse power capability (300W above 78V)
 - 10/1000μs 波形, 重复率:0.01%
 - a 10/1000μs waveform, repetition rate (duty cycle): 0.01%
 - 引线 and 管体皆符合 RoHS 标准。
 - Lead and body according with RoHS standard

机械数据 Mechanical Data

- 封装: 塑料封装 Case: Molded plastic body
- 端子: 焊料被镀 Terminals: Solder plated
- 极性: 色环端为负极 Polarity: Color band denotes cathode end
- 安装位置: 任意 Mounting Position: Any
- 重量 0.002盎司,0.064克 Weight: 0.002 ounce, 0.064 gram

产品的双向应用 Devices for Bidirectional Applications

“BI”为双向, 使用“CA”作后缀(如: TSMA10CA) For bi-directional devices, use suffix CA (e.g. TSMAJ0CA).

极限值和温度特性 $T_A = 25^\circ\text{C}$ 除非另有规定。

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
最大峰值脉冲功率 Peak pulse power dissipation with a 10/1000μs waveform ^(1, 2) (see fig. 1)	P_{PPM}	400	W
最大峰值脉冲电流 Peak pulse current with a 10/1000μs waveform ⁽¹⁾	I_{PPM}	See Next Table	A
正向峰值浪涌电流 8.3ms单一正弦半波 Peak forward surge current 8.3ms single half sine-wave uni-directional only ⁽³⁾	I_{FSM}	40	A
最大瞬时正向电压 Maximum Instantaneous Forward Voltage at 100A for Unidirectional Only (Note 4)	V_F	3.5/5.0	V
典型热阻 Typical thermal resistance	$R_{\theta JA}$ $R_{\theta JL}$	120 30	°C/W
工作结温和存储温度 Operating junction and storage temperature range	T_J, T_{STG}	-55---+150	°C

- Notes: 1. Non-repetitive current pulse, per Fig.3 and derated above $T_A=25^\circ\text{C}$ per Fig. 2.
 2. Mounted on 5.0x5.0mm copper pad to each terminal.
 3. Measured on 8.3ms single half sine wave or equivalent square wave for unidirectional device only.
 4. $V_F < 3.5V$ for $V_{BR-} < 200V$ and $V_F < 6.5V$ for $V_{BR-} > 220V$.



SHANGSI

T SMA6.8 thru 550A

Surface Mount Transient Voltage Suppressors

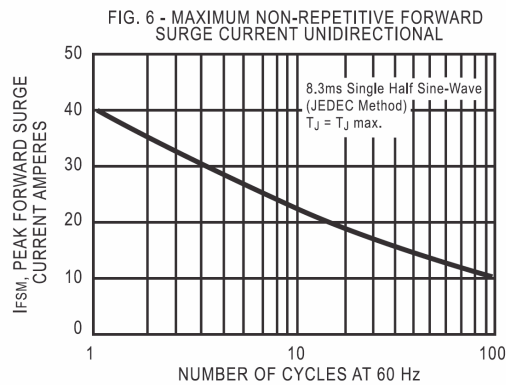
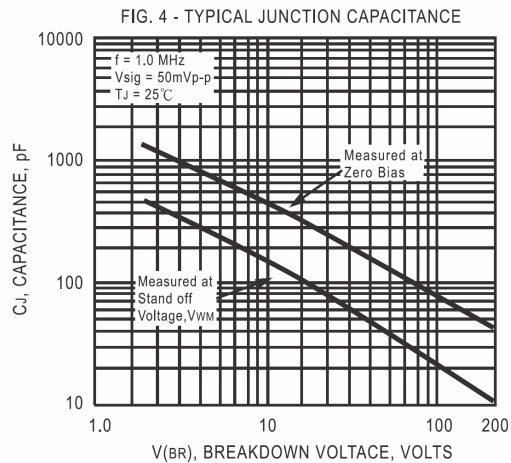
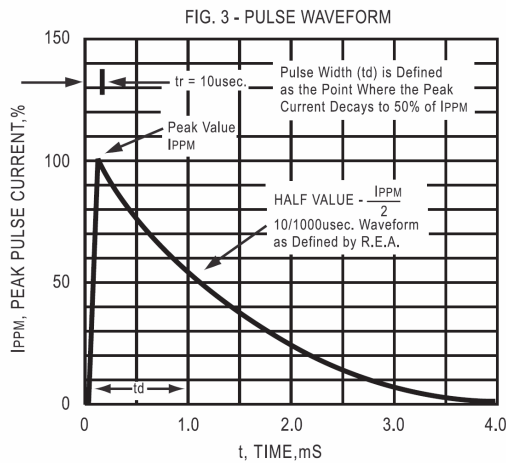
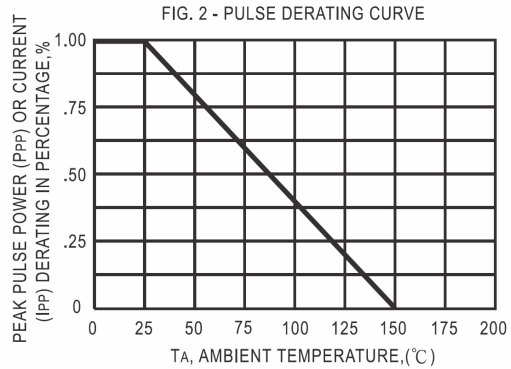
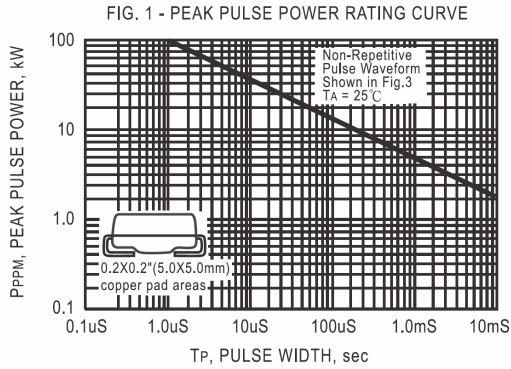
Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified

Part Number (Uni)	Part Number (Bi)	Marking		Reverse Stand off Voltage V_R (Volts)	Breakdown Voltage V_{BR} (Volts) @ I_T		Test Current I_T (mA)	Maximum Clamping Voltage V_C @ I_{PP} (V)	Maximum Peak Pulse Current I_{PP} (A)	Maximum Reverse Leakage I_R @ V_R (μ A)
					MIN	MAX				
T SMA6.8A	T SMA6.8CA	6V8A	6V8C	5.80	6.45	7.14	10	10.5	39.0	1000
T SMA7.5A	T SMA7.5CA	7V5A	7V5C	6.40	7.13	7.88	10	11.3	36.3	500
T SMA8.2A	T SMA8.2CA	8V2A	8V2C	7.02	7.79	8.61	10	12.1	33.9	200
T SMA9.1A	T SMA9.1CA	9V1A	9V1C	7.78	8.65	9.55	1	13.4	30.6	50
T SMA10A	T SMA10CA	10A	10C	8.55	9.50	10.50	1	14.5	28.3	10
T SMA11A	T SMA11CA	11A	11C	9.40	10.50	11.60	1	15.6	26.3	5
T SMA12A	T SMA12CA	12A	12C	10.20	11.40	12.60	1	16.7	24.6	5
T SMA13A	T SMA13CA	13A	13C	11.10	12.40	13.70	1	18.2	22.5	1
T SMA15A	T SMA15CA	15A	15C	12.80	14.30	15.80	1	21.2	19.3	1
T SMA16A	T SMA16CA	16A	16C	13.60	15.20	16.80	1	22.5	18.2	1
T SMA18A	T SMA18CA	18A	18C	15.30	17.10	18.90	1	25.5	16.1	1
T SMA20A	T SMA20CA	20A	20C	17.10	19.00	21.00	1	27.7	14.8	1
T SMA22A	T SMA22CA	22A	22C	18.80	20.90	23.10	1	30.6	13.4	1
T SMA24A	T SMA24CA	24A	24C	20.50	22.80	25.20	1	33.2	12.3	1
T SMA27A	T SMA27CA	27A	27C	23.10	25.70	28.40	1	37.5	10.9	1
T SMA30A	T SMA30CA	30A	30C	25.60	28.50	31.50	1	41.4	9.9	1
T SMA33A	T SMA33CA	33A	33C	28.20	31.40	34.70	1	45.7	9.0	1
T SMA36A	T SMA36CA	36A	36C	30.80	34.20	37.80	1	49.9	8.2	1
T SMA39A	T SMA39CA	39A	39C	33.30	37.10	41.00	1	53.9	7.6	1
T SMA43A	T SMA43CA	43A	43C	36.80	40.90	45.20	1	59.3	6.9	1
T SMA47A	T SMA47CA	47A	47C	40.20	44.70	49.40	1	64.8	6.3	1
T SMA51A	T SMA51CA	51A	51C	43.60	48.50	53.60	1	70.1	5.8	1
T SMA56A	T SMA56CA	56A	56C	47.80	53.20	58.80	1	77.0	5.3	1
T SMA62A	T SMA62CA	62A	62C	53.00	58.90	65.10	1	85.0	4.8	1
T SMA68A	T SMA68CA	68A	68C	58.10	64.60	71.40	1	92.0	4.5	1
T SMA75A	T SMA75CA	75A	75C	64.10	71.30	78.80	1	103.0	4.0	1
T SMA82A	T SMA82CA	82A	82C	70.10	77.90	86.10	1	113.0	3.6	1
T SMA91A	T SMA91CA	91A	91C	77.80	86.50	95.50	1	125.0	3.3	1
T SMA100A	T SMA100CA	100A	100C	85.50	95.00	105.00	1	137.0	3.0	1
T SMA110A	T SMA110CA	110A	110C	94.00	105.00	116.00	1	152.0	2.7	1
T SMA120A	T SMA120CA	120A	120C	102.00	114.00	126.00	1	165.0	2.5	1
T SMA130A	T SMA130CA	130A	130C	111.00	124.00	137.00	1	179.0	2.3	1
T SMA150A	T SMA150CA	150A	150C	128.00	143.00	158.00	1	207.0	2.0	1
T SMA160A	T SMA160CA	160A	160C	136.00	152.00	168.00	1	219.0	1.9	1
T SMA170A	T SMA170CA	170A	170C	145.00	162.00	179.00	1	234.0	1.8	1
T SMA180A	T SMA180CA	180A	180C	154.00	171.00	189.00	1	246.0	1.7	1
T SMA200A	T SMA200CA	200A	200C	171.00	190.00	210.00	1	274.0	1.5	1
T SMA220A	T SMA220CA	220A	220C	185.00	209.00	231.00	1	328.0	1.3	1
T SMA250A	T SMA250CA	250A	250C	214.00	237.00	263.00	1	344.0	1.2	1
T SMA300A	T SMA300CA	300A	300C	256.00	285.00	315.00	1	414.0	1.0	1
T SMA350A	T SMA350CA	350A	350C	300.00	332.00	368.00	1	482.0	0.9	1
T SMA400A	T SMA400CA	400A	400C	342.00	380.00	420.00	1	548.0	0.8	1
T SMA440A	T SMA440CA	440A	440C	376.00	418.00	462.00	1	602.0	0.7	1
T SMA480A	T SMA480CA	480A	480C	408.00	456.00	504.00	1	658.0	0.6	1
T SMA510A	T SMA510CA	510A	510C	434.00	485.00	535.00	1	698.0	0.6	1
T SMA530A	T SMA530CA	530A	530C	477.00	503.50	556.50	1	725.0	0.6	1
T SMA540A	T SMA540CA	540A	540C	486.00	513.00	567.00	1	740.0	0.5	1
T SMA550A	T SMA550CA	550A	550C	495.00	522.50	577.50	1	760.0	0.5	1

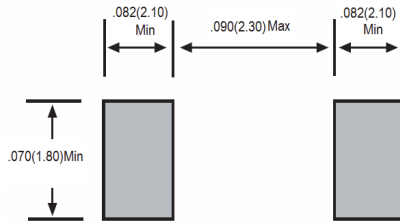
For bidirectional type having VRWM of 10 volts and less, the IR limit is double.

For parts without A (VBR is + 10% and VC is 5% higher than with A parts).

RATING AND CHARACTERISTIC CURVES



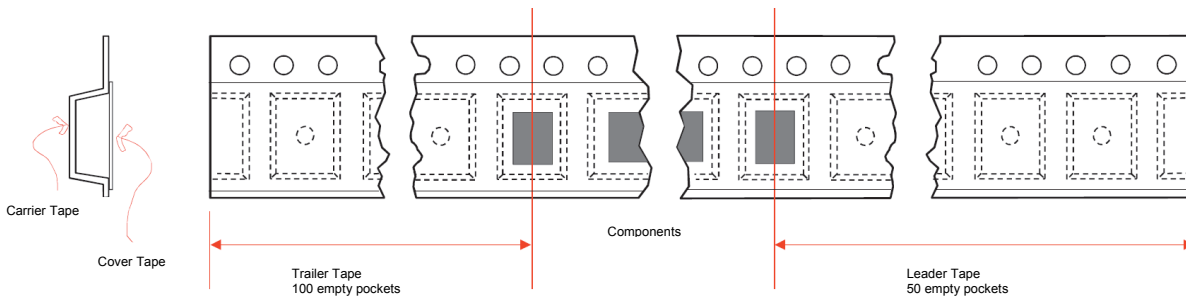
Mounting Pad Layout



Packing

Part number	Component Package	Quantity	Packaging Option
T SMA6.8-550A	DO-214AC SMA	5000	Tape & Reel – 12mm/13" tape

DO-214AC SMA Tape Leader and Trailer Configuration



Tape and Reel Specification

