

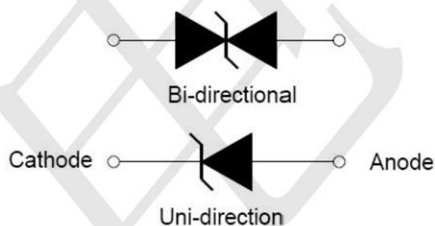
Features

Peak power dissipation 400W@10 x 1000 us Pluse
Low incremental surge resistance
Excellent clamping capability
Glass passivated junction
Fast response time
Typical IR less than 1uA above 10V
Halogen free and RoHS compliant

Mechanical Data

CASE: SMAJ(DO-214AC) Molded Plastic
Polarity: By cathode band denotes uni-directional device,
none cathode band denotes bi-directional device
Mounting Position:Any

DO-214AC (SMA)



Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Units
Peak Pulse Power Dissipation on 10/1000 us Waveform (Note 1, 2, FIG.1)	P_{PPM}	Min 400	W
Power Dissipation on Infinite Heat Sink at $T_L=50^{\circ}\text{C}$	P_D	3.3	W
Peak Pulse Current of on 10/1000us Waveform (Note 1, FIG.3)	I_{PPM}	See Table 1	A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave (Note 2. 3)	I_{FSM}	40	A
Operating Junction Temperature Range	T_J	-55 to 150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to 150	$^{\circ}\text{C}$

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

Type Number		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I _T	Breakdown Voltage Max. @ I _T	Test Current	Maximum Clamping Voltage @I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RMW}
(Uni)	(Bi)	V _{RMW} (V)	V _{BR MIN} (V)	V _{BR MAX} (V)	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (uA)
TPSMAJ5.0A	TPSMAJ5.0CA	5.0	6.40	7.00	10	9.2	43.5	500
TPSMAJ6.0A	TPSMAJ6.0CA	6.0	6.67	7.37	10	10.3	38.8	500
TPSMAJ6.5A	TPSMAJ6.5CA	6.5	7.22	7.98	10	11.2	35.7	300
TPSMAJ7.0A	TPSMAJ7.0CA	7.0	7.78	8.60	10	12.0	33.3	200
TPSMAJ7.5A	TPSMAJ7.5CA	7.5	8.33	9.21	1	12.9	31.0	100
TPSMAJ8.0A	TPSMAJ8.0CA	8.0	8.89	9.83	1	13.6	29.4	50
TPSMAJ8.5A	TPSMAJ8.5CA	8.5	9.44	10.40	1	14.4	27.8	20
TPSMAJ9.0A	TPSMAJ9.0CA	9.0	10.0	11.10	1	15.4	26.0	10
TPSMAJ10A	TPSMAJ10CA	10.0	11.10	12.30	1	17.0	23.5	5
TPSMAJ11A	TPSMAJ11CA	11.0	12.20	13.50	1	18.2	22.0	1
TPSMAJ12A	TPSMAJ12CA	12.0	13.30	14.70	1	19.9	20.1	1
TPSMAJ13A	TPSMAJ13CA	13.0	14.40	15.90	1	21.5	18.6	1
TPSMAJ14A	TPSMAJ14CA	14.0	15.60	17.20	1	23.2	17.2	1
TPSMAJ15A	TPSMAJ15CA	15.0	16.70	18.50	1	24.4	16.4	1
TPSMAJ16A	TPSMAJ16CA	16.0	17.80	19.70	1	26.0	15.4	1
TPSMAJ17A	TPSMAJ17CA	17.0	18.90	20.90	1	27.6	14.5	1
TPSMAJ18A	TPSMAJ18CA	18.0	20.00	22.10	1	29.2	13.7	1
TPSMAJ20A	TPSMAJ20CA	20.0	22.20	24.50	1	32.4	12.3	1
TPSMAJ22A	TPSMAJ22CA	22.0	24.40	26.90	1	35.5	11.3	1
TPSMAJ24A	TPSMAJ24CA	24.0	26.70	29.50	1	38.9	10.3	1
TPSMAJ26A	TPSMAJ26CA	26.0	28.90	31.90	1	42.1	9.5	1
TPSMAJ28A	TPSMAJ28CA	28.0	31.10	34.40	1	45.4	8.8	1
TPSMAJ30A	TPSMAJ30CA	30.0	33.30	36.80	1	48.4	8.3	1
TPSMAJ33A	TPSMAJ33CA	33.0	36.70	40.60	1	53.3	7.5	1
TPSMAJ36A	TPSMAJ36CA	36.0	40.00	44.20	1	58.1	6.9	1
TPSMAJ40A	TPSMAJ40CA	40.0	44.40	49.10	1	64.5	6.2	1
TPSMAJ43A	TPSMAJ43CA	43.0	47.80	52.80	1	69.4	5.8	1
TPSMAJ45A	TPSMAJ45CA	45.0	50.00	55.30	1	72.7	5.5	1
TPSMAJ48A	TPSMAJ48CA	48.0	53.30	58.90	1	77.4	5.2	1
TPSMAJ51A	TPSMAJ51CA	51.0	56.70	62.70	1	82.4	4.9	1
TPSMAJ54A	TPSMAJ54CA	54.0	60.00	66.30	1	87.1	4.6	1
TPSMAJ58A	TPSMAJ58CA	58.0	64.40	71.20	1	93.6	4.3	1
TPSMAJ60A	TPSMAJ60CA	60.0	66.70	73.70	1	96.8	4.1	1
TPSMAJ64A	TPSMAJ64CA	64.0	71.10	78.60	1	103.0	3.9	1
TPSMAJ70A	TPSMAJ70CA	70.0	77.80	86.00	1	113.0	3.5	1
TPSMAJ75A	TPSMAJ75CA	75.0	83.30	92.10	1	121.0	3.3	1
TPSMAJ78A	TPSMAJ78CA	78.0	86.70	95.80	1	126.0	3.2	1
TPSMAJ85A	TPSMAJ85CA	85.0	94.40	104.00	1	137.0	2.9	1
TPSMAJ90A	TPSMAJ90CA	90.0	100.00	111.00	1	146.0	2.7	1
TPSMAJ100A	TPSMAJ100CA	100.0	111.00	123.00	1	162.0	2.5	1
TPSMAJ110A	TPSMAJ110CA	110.0	122.00	135.00	1	177.0	2.3	1
TPSMAJ120A	TPSMAJ120CA	120.0	133.00	147.00	1	193.0	2.1	1
TPSMAJ130A	TPSMAJ130CA	130.0	144.00	159.00	1	209.0	1.9	1
TPSMAJ150A	TPSMAJ150CA	150.0	167.00	185.00	1	243.0	1.6	1
TPSMAJ160A	TPSMAJ160CA	160.0	178.00	197.00	1	259.0	1.5	1
TPSMAJ170A	TPSMAJ170CA	170.0	189.00	209.00	1	275.0	1.5	1
TPSMAJ180A	TPSMAJ180CA	180.0	201.00	222.00	1	292.0	1.4	1
TPSMAJ190A	TPSMAJ190CA	190.0	211.00	233.00	1	308.0	1.3	1
TPSMAJ200A	TPSMAJ200CA	200.0	224.00	247.00	1	324.0	1.2	1
TPSMAJ210A	TPSMAJ210CA	210.0	237.00	263.00	1	340.0	1.2	1
TPSMAJ220A	TPSMAJ220CA	220.0	246.00	272.00	1	356.0	1.1	1
TPSMAJ250A	TPSMAJ250CA	250.0	279.00	309.00	1	405.0	1.0	1
TPSMAJ300A	TPSMAJ300CA	300.0	335.00	371.00	1	486.0	0.8	1
TPSMAJ350A	TPSMAJ350CA	350.0	391.00	432.00	1	567.0	0.7	1
TPSMAJ400A	TPSMAJ400CA	400.0	447.00	494.00	1	648.0	0.6	1
TPSMAJ440A	TPSMAJ440CA	440.0	492.00	543.00	1	713.0	0.6	1

Ratings and Characteristic Curves

(Ratings at 25°C ambient temperature unless otherwise specified).

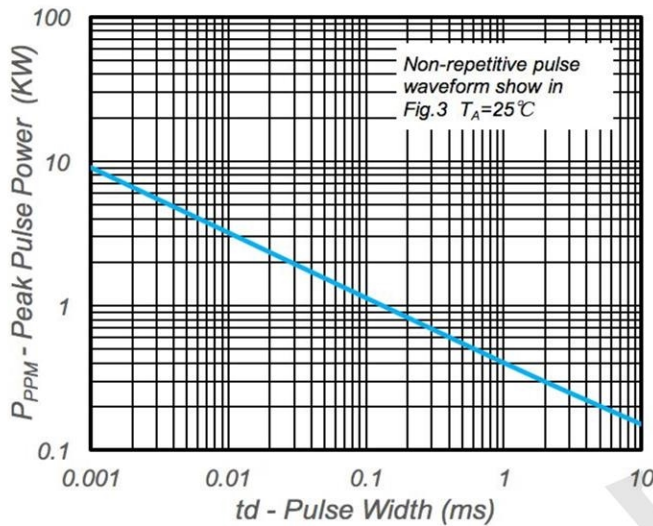


Fig.1 Peak Pulse Power Rating

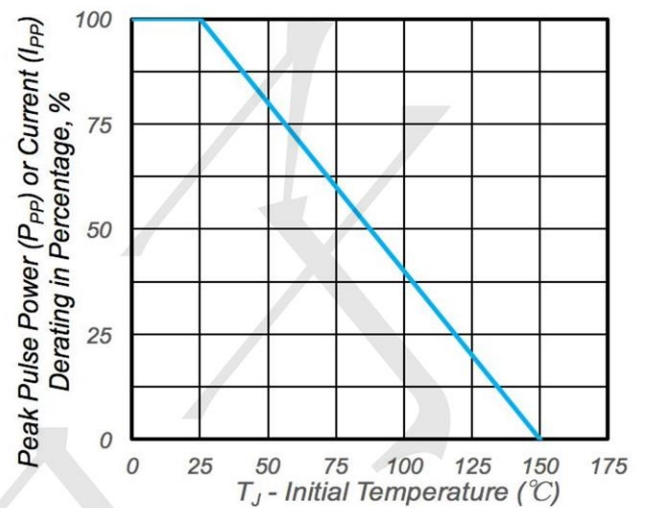


Fig.2 Pulse Derating Cure

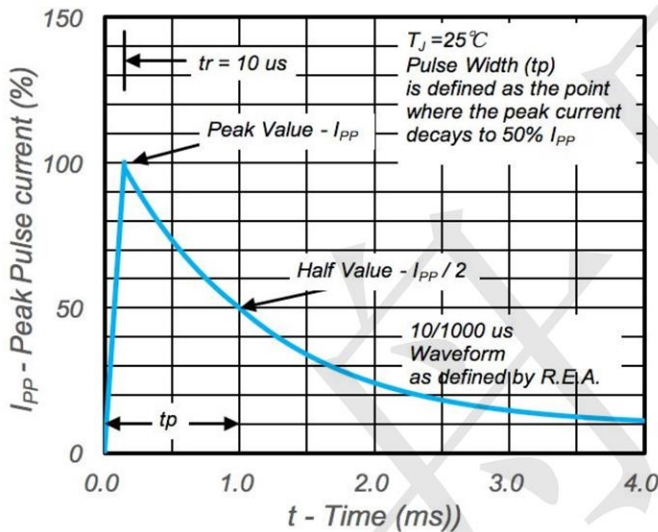


Fig.3 Pulse Waveform

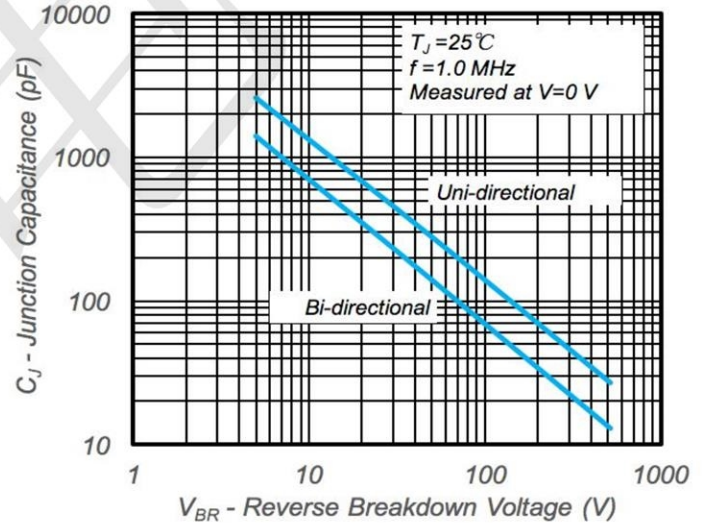


Fig.4 Typical Junction Capacitance

Package Outline Dimensions: SMA(DO-214AC)

Dim	Millimeters		Inches	
	Min	Max	Min	Max
L	4.1	4.3	0.161	0.169
D	2.5	2.7	0.098	0.106
D1	1.3	1.5	0.051	0.059
T	4.8	5.2	0.189	0.205
T1	0.9	1.5	0.035	0.060
d	-	0.2	-	0.008
H	2.05	2.35	0.081	0.093
H1	2.0	2.2	0.079	0.087