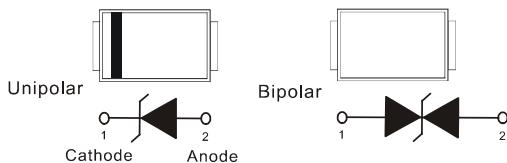
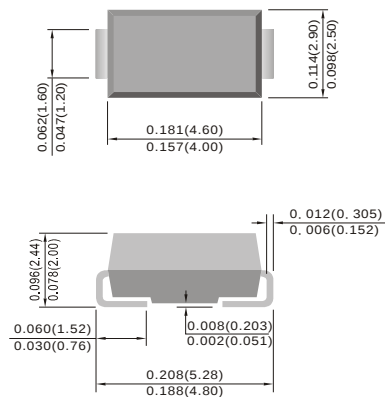


P4SMA6.8A ~ P4SMA600CA**TRANSIENT VOLTAGE SUPPRESSOR****BREAK DOWN VOLTAGE 6.8 to 550 Volt POWER 400 Watt****SMA / DO-214AC**

Unit : inch(mm)

**FEATURES**

- For surface mounted applications in order to optimize board space
- Glass passivated junction
- Low inductance
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- High temperature soldering : 260°C /10 seconds at terminals

MECHANICAL DATA

- Case: JEDEC DO-214AC/SMA, Molded plastic over passivated junction
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Standard Packaging: 12mm tape (EIA-481)
- Weight: 0.002 ounce, 0.068 gram

DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types P4SMA6.8 thru types P4SMA550.
Electrical characteristics apply in both directions.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Units
Peak Pulse Power Dissipation on $T_A = 25^\circ\text{C}$ (Notes 1,2,5, Fig.1)	P_{PP}	400	Watts
ESD IEC-61000-4-2 (Air) ESD IEC-61000-4-2 (Contact)	V_{ESD}	± 30 ± 30	kV
Peak Forward Surge Current per Fig.5 (Notes 3)	I_{FSM}	40	Amps
Peak Pulse Current on $t_p=10/1000\mu\text{s}$ waveform (Notes 1)Fig.2	I_{PPM}	see Table 1	Amps
Typical Thermal Resistance Junction to Air (Notes 2)	$R_{\theta JA}$	70	$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

NOTES :

1. Non-repetitive current pulse, per Fig.3 and derated above $T_A = 25^\circ\text{C}$ per Fig. 2.
2. Mounted on 5mm² copper pads to each terminal.
3. 8.3ms single half sine-wave, or equivalent square wave, duty cycle = 4 pulses per minutes maximum.
4. Lead temperature at 75°C = T_L .
5. Peak pulse power waveform is 10/1000 μs .
6. A transient suppressor is selected according to the working peak reverse voltage (V_{RWM}), which should be equal to or greater than the DC or continuous peak operating voltage level.

P4SMA6.8A ~ P4SMA600CA**400W Transient Voltage Suppressor**

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 _{RM}
UNI-POLAR	BI-POLAR	UNI	BI	V _{RM} (V)	Min. (V)	Max. (V)	I _T (mA)	V _C MAX. (V)	I _{PP} (A)	I _R (uA)
P4SMA6.8A	P4SMA6.8CA	MZB	NZB	5.80	6.45	7.14	10	10.50	39.00	1000
P4SMA7.5A	P4SMA7.5CA	MZD	NZD	6.40	7.13	7.88	10	11.30	36.30	500
P4SMA8.2A	P4SMA8.2CA	MZF	NZF	7.00	7.79	8.61	10	12.10	33.90	200
P4SMA9.1A	P4SMA9.1CA	MZH	NZH	7.80	8.65	9.55	1	13.40	30.60	50
P4SMA10A	P4SMA10CA	MZK	NZK	8.60	9.50	10.50	1	14.50	28.30	10
P4SMA11A	P4SMA11CA	MZM	NZM	9.40	10.50	11.60	1	15.60	26.30	5
P4SMA12A	P4SMA12CA	MZP	NZP	10.20	11.40	12.60	1	16.70	24.60	5
P4SMA13A	P4SMA13CA	MZR	NZR	11.10	12.40	13.70	1	18.20	22.50	1
P4SMA15A	P4SMA15CA	MZT	NZT	12.80	14.30	15.80	1	21.20	19.30	1
P4SMA16A	P4SMA16CA	MZV	NZV	13.60	15.20	16.80	1	22.50	18.20	1
P4SMA18A	P4SMA18CA	MZX	NZX	15.30	17.10	18.90	1	25.50	16.10	1
P4SMA20A	P4SMA20CA	MZZ	NZZ	17.10	19.00	21.00	1	27.70	14.80	1
P4SMA22A	P4SMA22CA	MXB	NXB	18.80	20.90	23.10	1	30.60	13.40	1
P4SMA24A	P4SMA24CA	MXD	NXD	20.50	22.80	25.20	1	33.20	12.30	1
P4SMA27A	P4SMA27CA	MXF	NXF	23.10	25.70	28.40	1	37.50	10.90	1
P4SMA30A	P4SMA30CA	MXH	NXH	25.60	28.50	31.50	1	41.40	9.90	1
P4SMA33A	P4SMA33CA	MXK	NXK	28.20	31.40	34.70	1	45.70	9.00	1
P4SMA36A	P4SMA36CA	MXM	NXM	30.80	34.20	37.80	1	49.90	8.20	1
P4SMA39A	P4SMA39CA	MXP	NXP	33.30	37.10	41.00	1	53.90	7.60	1
P4SMA43A	P4SMA43CA	MXR	NXR	36.80	40.90	45.20	1	59.30	6.90	1
P4SMA47A	P4SMA47CA	MXT	NXT	40.20	44.70	49.40	1	64.80	6.30	1
P4SMA51A	P4SMA51CA	MXV	NXV	43.60	48.50	53.60	1	70.10	5.80	1
P4SMA56A	P4SMA56CA	MXX	NXX	47.80	53.20	58.80	1	77.00	5.30	1
P4SMA62A	P4SMA62CA	MXZ	NXZ	53.00	58.90	65.10	1	85.00	4.80	1
P4SMA68A	P4SMA68CA	MYB	NYB	58.10	64.60	71.40	1	92.00	4.50	1
P4SMA75A	P4SMA75CA	MYD	NYD	64.10	71.30	78.80	1	103.00	4.00	1
P4SMA82A	P4SMA82CA	MYF	NYF	70.10	77.90	86.10	1	113.00	3.60	1
P4SMA91A	P4SMA91CA	MYH	NYH	77.80	86.50	95.50	1	125.00	3.30	1
P4SMA100A	P4SMA100CA	MYK	NYK	85.50	95.00	105.00	1	137.00	3.00	1
P4SMA110A	P4SMA110CA	MYM	NYM	94.00	105.00	116.00	1	152.00	2.70	1
P4SMA120A	P4SMA120CA	MYP	NYP	102.00	114.00	126.00	1	165.00	2.50	1
P4SMA130A	P4SMA130CA	MYR	NYR	111.00	124.00	137.00	1	179.00	2.30	1
P4SMA150A	P4SMA150CA	MYT	NYT	128.00	143.00	158.00	1	207.00	2.00	1
P4SMA160A	P4SMA160CA	MYV	NYV	136.00	152.00	168.00	1	219.00	1.90	1
P4SMA170A	P4SMA170CA	MYX	NYX	145.00	162.00	179.00	1	234.00	1.80	1
P4SMA180A	P4SMA180CA	MYZ	NYZ	154.00	171.00	189.00	1	246.00	1.70	1
P4SMA200A	P4SMA200CA	MWB	NWB	171.00	190.00	210.00	1	274.00	1.50	1
P4SMA220A	P4SMA220CA	MWD	NWD	185.00	209.00	231.00	1	328.00	1.30	1
P4SMA250A	P4SMA250CA	MWF	NWF	214.00	237.00	263.00	1	344.00	1.20	1
P4SMA300A	P4SMA300CA	MWG	NWG	256.00	285.00	315.00	1	414.00	1.00	1
P4SMA350A	P4SMA350CA	MWH	NWH	300.00	332.00	368.00	1	482.00	0.90	1
P4SMA400A	P4SMA400CA	MWI	NWI	342.00	380.00	420.00	1	548.00	0.80	1
P4SMA440A	P4SMA440CA	MWJ	NWJ	376.00	418.00	462.00	1	602.00	0.70	1
P4SMA480A	P4SMA480CA	MWK	NWK	408.00	456.00	504.00	1	658.00	0.60	1
P4SMA510A	P4SMA510CA	MWL	NWL	434.00	485.00	535.00	1	698.00	0.60	1
P4SMA530A	P4SMA530CA	MWM	NWM	450.00	503.00	556.00	1	725.00	0.60	1
P4SMA540A	P4SMA540CA	MWN	NWN	459.00	513.00	567.00	1	740.00	0.50	1
P4SMA550A	P4SMA550CA	MWO	NWO	467.00	522.50	577.50	1	760.00	0.50	1
P4SMA600A	P4SMA600CA	MWP	NWP	509.00	570.00	630.00	1	780.00	0.50	1

P4SMA6.8A ~ P4SMA600CA

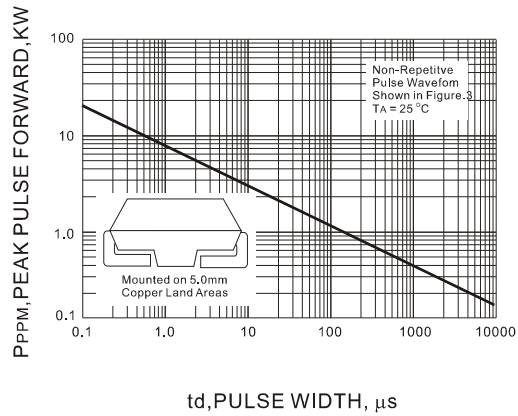


Fig.1 PEAK PULSE POWER RATING CURVE

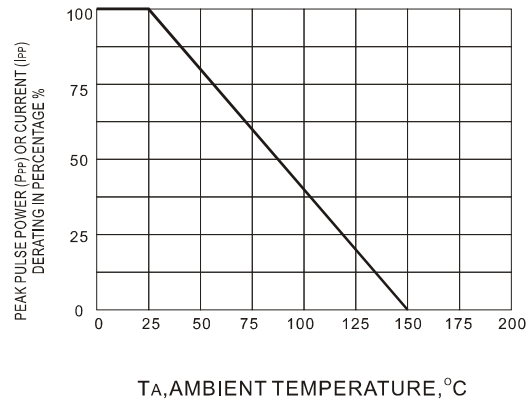


Fig.2 DERATING CURVE

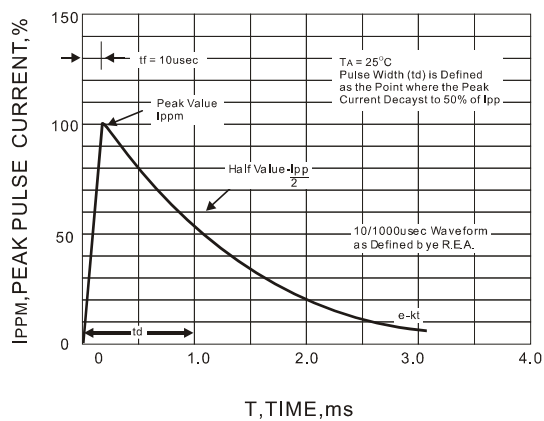


Fig.3 PULSE WAVEFORM

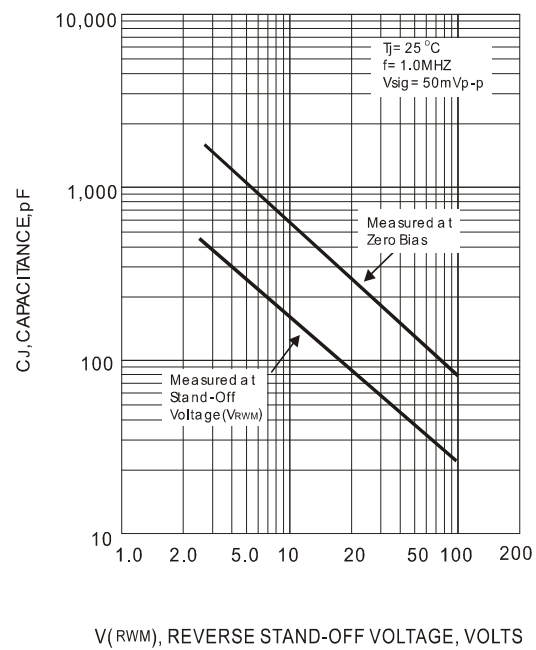


Fig.4 TYPICAL JUNCTION CAPACITANCE

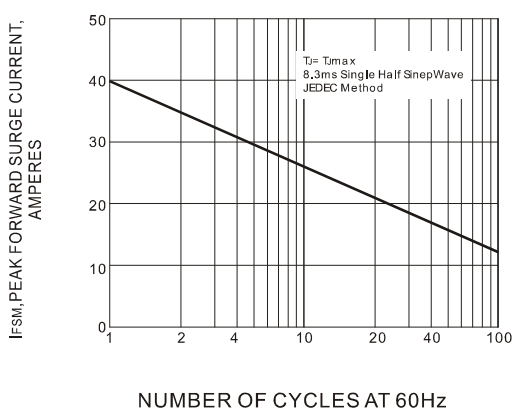


Fig.5 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

The cruve graph is for reference only, can't be the basis for judgment

P4SMA6.8A ~ P4SMA600CA

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