

400W Transient Voltage Suppressors


TVS Diodes - 400W > P4SMA Series



Description

The P4SMA series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

Features

- For surface mounted applications in order to optimize board space
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has UL flammability classification 94V-0
- Typical IR less than 1uA above 10V
- Fast response time: typically less than 1.0ps from 0 Volts to VBR min
- Glass passivated junction
- Low inductance
- Agency recognition: 



Package: DO-214AC / SMA

Applications

- I/O interface
- AC/DC power supply
- Low frequency signal transmission line (RS232, RS485, etc.)

Electrical Characteristics

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation at TA=25°C by 10x1000µs waveform (Fig.1)(Note 1), (Note 2)	PPPM	400	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave (Note 3)	IFSM	40	A
Operating Junction and Storage Temperature Range	TJ, TSTG	-55 to +150	°C

Notes:

1. Non-repetitive current pulse, per Fig.3 and derated above TA=25°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.

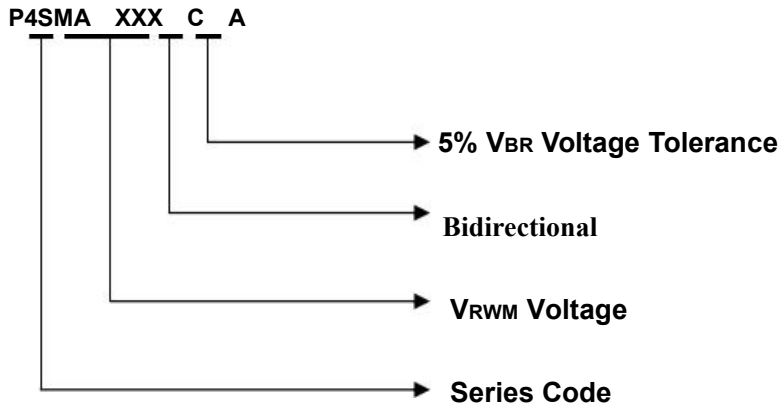
Electrical Characteristics (TA=25°C)

Part Number		Reverse Stand-Off Voltage	Breakdown Voltage V _{BR} (Volts)@IT		Test Current	Maximum Clamping Voltage@I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RWM}	Certification	Delivery Time
Uni-Polar	Bi-polar	V _{RWM} (V)	Min	Max	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (μA)	UL	days
P4SMA6.8A	P4SMA6.8CA	5.80	6.45	7.14	10	10.5	39.0	1000	√	12days
P4SMA7.5A	P4SMA7.5CA	6.40	7.13	7.88	10	11.3	36.3	500	√	12days
P4SMA8.2A	P4SMA8.2CA	7.02	7.79	8.61	10	12.1	33.9	200	√	12days
P4SMA9.1A	P4SMA9.1CA	7.78	8.65	9.55	1	13.4	30.6	50	√	12days
P4SMA10A	P4SMA10CA	8.55	9.50	10.5	1	14.5	28.3	1	√	12days
P4SMA11A	P4SMA11CA	9.40	10.5	11.6	1	15.6	26.3	1	√	12days
P4SMA12A	P4SMA12CA	10.2	11.4	12.6	1	16.7	24.6	1	√	12days
P4SMA13A	P4SMA13CA	11.1	12.4	13.7	1	18.2	22.5	1	√	12days
P4SMA15A	P4SMA15CA	12.8	14.3	15.8	1	21.2	19.3	1	√	12days
P4SMA16A	P4SMA16CA	13.6	15.2	16.8	1	22.5	18.2	1	√	12days
P4SMA18A	P4SMA18CA	15.3	17.1	18.9	1	25.2	16.1	1	√	12days
P4SMA20A	P4SMA20CA	17.1	19.0	21.0	1	27.7	14.8	1	√	12days
P4SMA22A	P4SMA22CA	18.8	20.9	23.1	1	30.6	13.4	1	√	12days
P4SMA24A	P4SMA24CA	20.5	22.8	25.2	1	33.2	12.3	1	√	12days
P4SMA27A	P4SMA27CA	23.1	25.7	28.4	1	37.5	10.9	1	√	12days
P4SMA30A	P4SMA30CA	25.6	28.5	31.5	1	41.4	9.9	1	√	12days
P4SMA33A	P4SMA33CA	28.2	31.4	34.7	1	45.7	9.0	1	√	12days
P4SMA36A	P4SMA36CA	30.8	34.2	37.8	1	49.9	8.2	1	√	12days
P4SMA39A	P4SMA39CA	33.3	37.1	41.0	1	53.9	7.6	1	√	12days
P4SMA43A	P4SMA43CA	36.8	40.9	45.2	1	59.3	6.9	1	√	12days
P4SMA47A	P4SMA47CA	40.2	44.7	49.4	1	64.8	6.3	1	√	12days
P4SMA51A	P4SMA51CA	43.6	48.5	53.6	1	70.1	5.8	1	√	12days
P4SMA56A	P4SMA56CA	47.8	53.2	58.8	1	77.0	5.3	1	√	12days
P4SMA62A	P4SMA62CA	53.0	58.9	65.1	1	85.0	4.8	1	√	12days

Electrical Characteristics (TA=25°C) continued

Part Number		Reverse Stand-Off Voltage	Breakdown Voltage		Test Current	Maximum Clamping Voltage@IPP	Peak Pulse Current	Reverse Leakage @VRWM	Certification	Delivery Time
Uni-Polar	Bi-polar	VRWM(V)	Min	Max	IT(mA)	VC(V)	IPP(A)	IR(μA)	UL	days
P4SMA68A	P4SMA68CA	58.1	64.6	71.4	1	92.0	4.5	1	√	12days
P4SMA75A	P4SMA75CA	64.1	71.3	78.8	1	103.0	4.0	1	√	12days
P4SMA82A	P4SMA82CA	70.1	77.9	86.1	1	113.0	3.6	1	√	12days
P4SMA91A	P4SMA91CA	77.8	86.5	95.5	1	125.0	3.3	1	√	12days
P4SMA100A	P4SMA100CA	85.5	95.0	105	1	137.0	3.0	1	√	12days
P4SMA110A	P4SMA110CA	94.0	105.0	116	1	152.0	2.7	1	√	12days
P4SMA120A	P4SMA120CA	102.0	114.0	126	1	165.0	2.5	1	√	12days
P4SMA130A	P4SMA130CA	111.0	124.0	137	1	179.0	2.3	1	√	12days
P4SMA150A	P4SMA150CA	128.0	143.0	158	1	207.0	2.0	1	√	12days
P4SMA160A	P4SMA160CA	136.0	152.0	168	1	219.0	1.9	1	√	12days
P4SMA170A	P4SMA170CA	145.0	162.0	179	1	234.0	1.8	1	√	12days
P4SMA180A	P4SMA180CA	154.0	171.0	189	1	246.0	1.7	1	√	12days
P4SMA200A	P4SMA200CA	171.0	190.0	210	1	274.0	1.5	1	√	12days
P4SMA220A	P4SMA220CA	185.0	209.0	231	1	328.0	1.3	1	√	12days
P4SMA250A	P4SMA250CA	214.0	237.0	263	1	344.0	1.2	1	√	12days
P4SMA300A	P4SMA300CA	256.0	285.0	315	1	414.0	1.0	1	√	12days
P4SMA350A	P4SMA350CA	300.0	332.0	368	1	482.0	0.85	1	√	12days
P4SMA400A	P4SMA400CA	342.0	380.0	420	1	548.0	0.75	1	√	12days
P4SMA440A	P4SMA440CA	376.0	418.0	462	1	602.0	0.68	1	√	12days

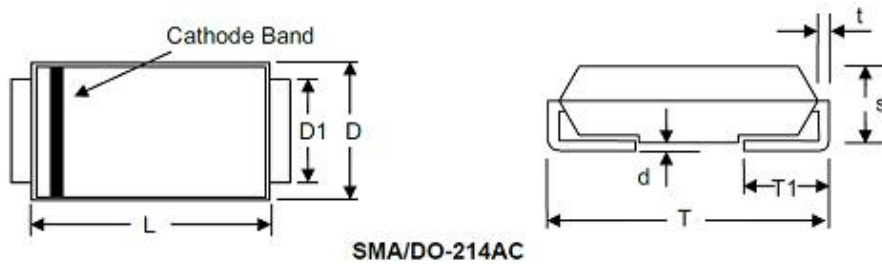
Description of Part Number



Packing Options

Package Type	Description	Packing Quantity	Industry Standard
DO-214AC	Embossed Carrier Reel Pack	5000PCS	EIA STD RS-481

Dimensions - DO-214AC



Item	Millimeters		Inches	
	Min.	Max.	Min.	Max.
L	3.99	4.50	0.157	0.177
D	2.54	2.79	0.100	0.110
D1	1.25	1.65	0.049	0.065
T	4.93	5.28	0.194	0.208
T1	0.78	1.52	0.030	0.060
d	-	0.203	-	0.008
s	1.98	2.29	0.078	0.090
t	0.152	0.305	0.006	0.012