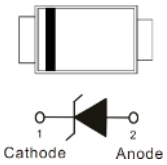
P2AL3.3A ~ P2AL40A Series

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

Voltage 3.3~40 V **Power** 200 W

SOD-123FL



Features

- Ultra thin profile package for space constrained utilization.
- High temperature soldering: 260°C/10 seconds at terminals
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: Molded plastic, SOD-123FL
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color Band denotes cathode end
- Approx. Weight: 0.0006 ounces, 0.0173 grams

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power Dissipation(tp = 10/1000 us)	P_{PP} (1,2)	200	W
Peak Pulse Current on tp = 10/1000 us waveform (Fig.2)	I_{PPM} (1)	See table 1	A
ESD IEC61000-4-2(Air) ESD IEC61000-4-2(Contact)	V_{ESD}	±30 ±30	kV
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$ (3)	200	°C/W
Operating Junction Temperature Range	T_J	-55~150	°C
Storage Temperature Range	T_{STG}	-65~150	°C

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Electrical Characteristics (T_A = 25°C unless otherwise noted)

Part Number	V_{RWM}	V_{BR}			I_R@V_{RWM}	V_C@I_{PP}		Marking Code
		Min.	Max.	I_T				
	V	V	V	mA	uA	V	A	
200W Transient Voltage Suppressor								
P2AL3.3A	3.3	5.2	6	10	50	8.5	23.5	2E1
P2AL5.0A	5	6.4	7	10	25	9.2	21.7	2E2
P2AL6.0A	6	6.67	7.37	10	25	10.3	19.4	2E3
P2AL6.5A	6.5	7.22	7.98	10	20	11.2	17.9	2E4
P2AL7.0A	7	7.78	8.6	10	20	12	16.7	2E5
P2AL7.5A	7.5	8.33	9.21	1	15	12.9	15.5	2E6
P2AL8.0A	8	8.89	9.83	1	2	13.6	14.7	2E7
P2AL8.5A	8.5	9.44	10.4	1	2	14.4	13.9	2E8
P2AL9.0A	9	10	11.1	1	0.5	15.4	13	2E9
P2AL10A	10	11.1	12.3	1	0.5	17	11.8	2EA
P2AL11A	11	12.2	13.5	1	0.5	18.2	11	2EC
P2AL12A	12	13.3	14.7	1	0.5	19.9	10.1	2ED
P2AL13A	13	14.4	15.9	1	0.1	21.5	9.3	2EE
P2AL14A	14	15.6	17.2	1	0.1	23.2	8.6	2EF
P2AL15A	15	16.7	18.5	1	0.1	24.4	8.2	2EH
P2AL16A	16	17.8	19.7	1	0.1	26	7.7	2EJ
P2AL17A	17	18.9	20.9	1	0.1	27.6	7.2	2EK
P2AL18A	18	20	22.1	1	0.1	29.2	6.8	2EL
P2AL20A	20	22.2	24.5	1	0.1	32.4	6.2	2EM
P2AL22A	22	24.4	26.9	1	0.1	35.5	5.6	2EN
P2AL24A	24	26.7	29.5	1	0.1	38.9	5.1	2EP
P2AL26A	26	28.9	31.9	1	0.1	42.1	4.8	2ER
P2AL28A	28	31.1	34.4	1	0.1	45.4	4.4	2ET
P2AL30A	30	33.3	36.8	1	0.1	48.4	4.1	2EU
P2AL33A	33	36.7	40.6	1	0.1	53.3	3.8	2EV
P2AL36A	36	40	44.2	1	0.1	58.1	3.4	2EW
P2AL40A	40	44.4	49.1	1	0.1	64.5	3.1	2EX

NOTES:

1. Non-repetitive current pulse, per Fig.3 and derated above T_A = 25°C per Fig.2
2. Mounted on 5mm^2 copper pads to each terminal
3. Mounted on a FR4 PCB, single-sided copper, mini pad

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TYPICAL CHARACTERISTIC CURVES

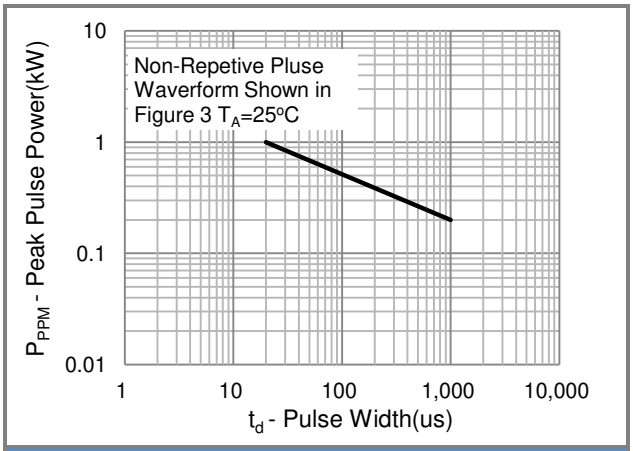

Fig.1 Pulse Power Rating Curve

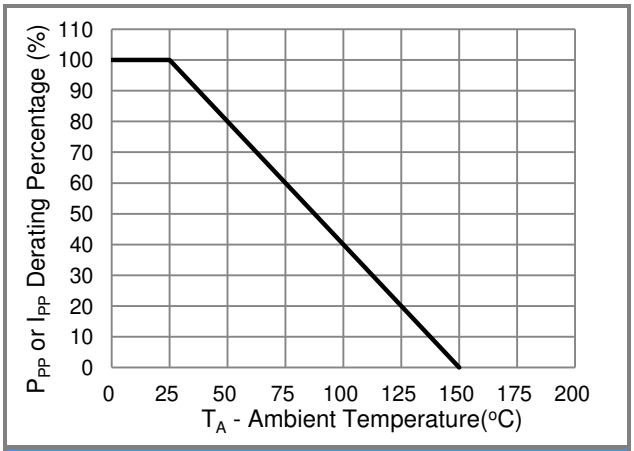

Fig.2 Derating Curve

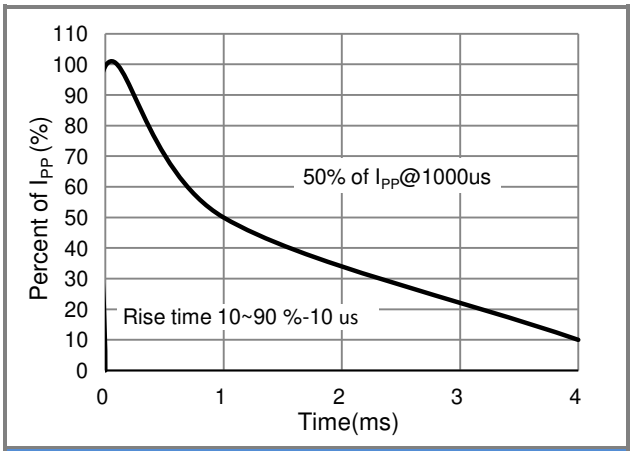

Fig.3 Pulse Waveform

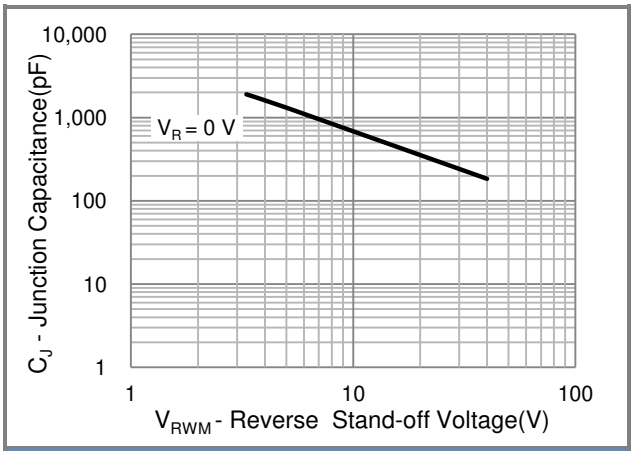

Fig.4 Typical Capacitance

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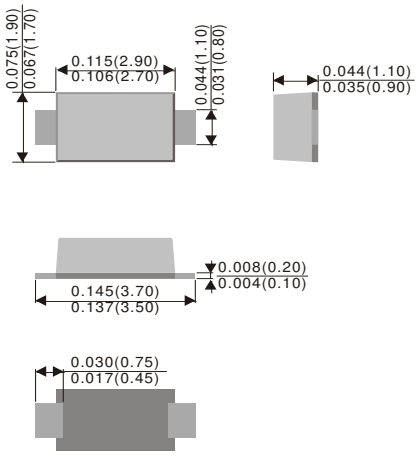
Part No Packing Code Version

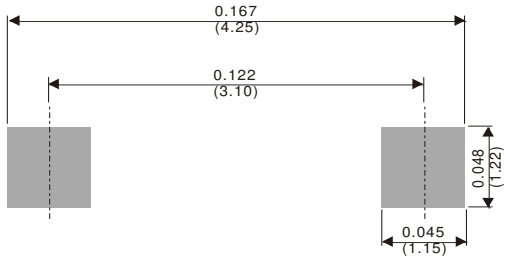
Part No Packing Code	Package Type	Packing Type	Marking	Version
P2ALxxxA_R1_00001	SOD-123FL	3K pcs / 7” reel	See Table	Halogen free

Packaging Information & Mounting Pad Layout

SOD-123FL Dimension — Unit: inch(mm)



SOD-123FL Pad Layout — Unit: inch(mm)



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