



SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

Voltage

3.3~64 V

Power

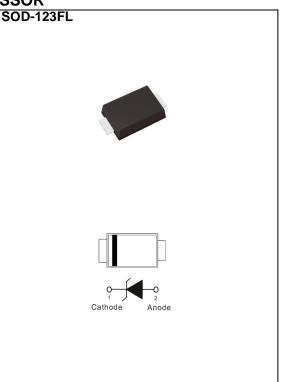
400 W

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)	400	W
Peak Pulse Current on tp = 10/1000 us waveform ^(Fig.2)	I _{PPM} ⁽¹⁾	See table 1	Α
ESD IEC61000-4-2(Air)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	±30	1.37
ESD IEC61000-4-2(Contact)	V _{ESD}	±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





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

		V_{BR}							
Part Number	V_{RWM}	Min.	Max.	I _T	$I_R@V_{RWM}$	V _C @I _{PP}		Marking	
	V	V	V	mA	uA	V	Α	Code	
400W Transient Vo	400W Transient Voltage Suppressor								
P4FL3.3A	3.3	5.2	6	10	100	8.5	47	4F1	
P4FL5.0A	5	6.4	7	10	50	9.2	43.5	4F2	
P4FL6.0A	6	6.67	7.37	10	50	10.3	38.8	4F3	
P4FL6.5A	6.5	7.22	7.98	10	40	11.2	35.7	4F4	
P4FL7.0A	7	7.78	8.6	10	40	12	33.3	4F5	
P4FL7.5A	7.5	8.33	9.21	1	30	12.9	31	4F6	
P4FL8.0A	8	8.89	9.83	1	5	13.6	29.4	4F7	
P4FL8.5A	8.5	9.44	10.4	1	5	14.4	27.8	4F8	
P4FL9.0A	9	10	11.1	1	0.5	15.4	26	4F9	
P4FL10A	10	11.1	12.3	1	0.5	17	23.5	4FA	
P4FL11A	11	12.2	13.5	1	0.5	18.2	22	4FB	
P4FL12A	12	13.3	14.7	1	0.5	19.9	20.1	4FC	
P4FL13A	13	14.4	15.9	1	0.1	21.5	18.6	4FD	
P4FL14A	14	15.6	17.2	1	0.1	23.2	17.2	4FE	
P4FL15A	15	16.7	18.5	1	0.1	24.4	16.4	4FF	
P4FL16A	16	17.8	19.7	1	0.1	26	15.4	4FH	
P4FL17A	17	18.9	20.9	1	0.1	27.6	14.5	4FJ	
P4FL18A	18	20	22.1	1	0.1	29.2	13.7	4FK	
P4FL20A	20	22.2	24.5	1	0.1	32.4	12.3	4FL	
P4FL22A	22	24.4	26.9	1	0.1	35.5	11.3	4FM	
P4FL24A	24	26.7	29.5	1	0.1	38.9	10.3	4FN	
P4FL26A	26	28.9	31.9	1	0.1	42.1	9.5	4FP	
P4FL28A	28	31.1	34.4	1	0.1	45.4	8.8	4FR	
P4FL30A	30	33.3	36.8	1	0.1	48.4	8.3	4FT	
P4FL33A	33	36.7	40.6	1	0.1	53.3	7.5	4FU	
P4FL36A	36	40	44.2	1	0.1	58.1	6.9	4FV	
P4FL40A	40	44.4	49.1	1	0.1	64.5	6.2	4FW	
P4FL43A	43	47.8	52.8	1	0.1	69.4	5.8	4FX	
P4FL45A	45	50	55.3	1	0.1	72.2	5.5	4FY	
P4FL48A	48	53.3	58.9	1	0.1	77.4	5.2	4FZ	
P4FL51A	51	56.7	62.7	1	0.1	82.4	4.9	4H1	





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

Part Number	V_{RWM}	V_{BR}			1.007	V @I		Marking
		Min.	Max.	I _T	$I_R@V_{RWM}$	V _C @I _{PP}		Marking
	V	V	V	mA	uA	V	А	Code
400W Transient Voltage Suppressor								
P4FL54A	54	60	66.3	1	0.1	87.1	4.6	4H2
P4FL58A	58	64.4	71.2	1	0.1	93.6	4.3	4H3
P4FL60A	60	66.7	73.7	1	0.1	96.8	4.1	4H4
P4FL64A	64	71.1	78.6	1	0.1	103	3.9	4H5

NOTES:

- 1. Non-repetitive current pulse, per Fig.3 and derated above T_A = 25°C per Fig.2
- 2. Mounted on 5mm² copper pads to each terminal
- 3. Mounted on a FR4 PCB, single-sided copper, mini pad
- 4. TVS is a transient protection device, it is strongly recommended not to use as a Zener





TYPICAL CHARACTERISTIC CURVES

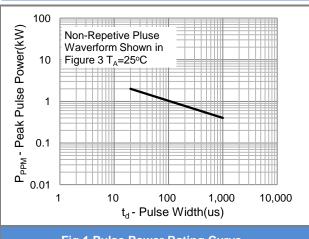


Fig.1 Pulse Power Rating Curve

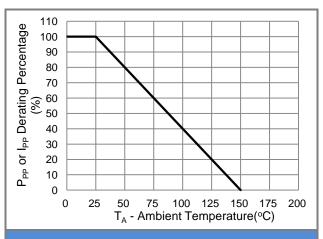
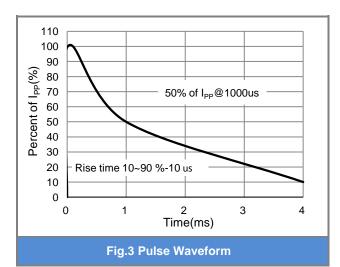
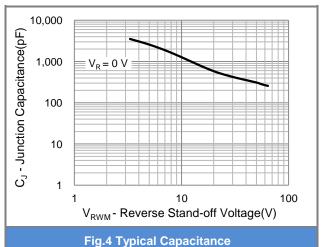


Fig.2 Derating Curve





July 26,2018-REV.04 Page 4

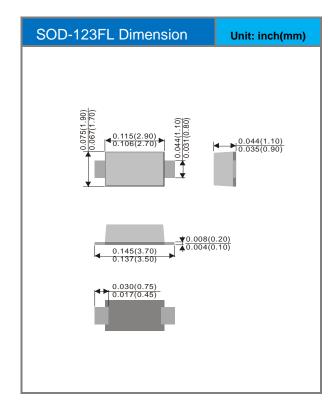


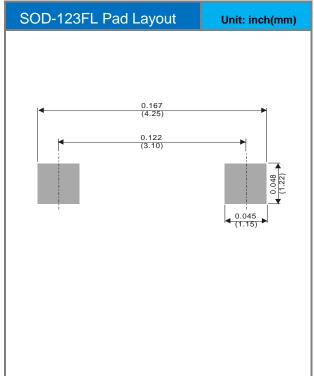


Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version	
P4FLxxxA_R1_00001	SOD-123FL	3K pcs / 7" reel	See Table	Halogen free	

Packaging Information & Mounting Pad Layout









Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are
 responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no
 representation or warranty that such applications will be suitable for the specified use without further testing or
 modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Panjit:

P4FL8.5A_R1_00001