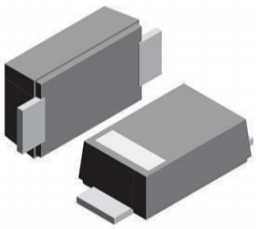
TP4LSMF Series

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

DESCRIPTION:

TVS diodes can be used in a wide range of applications which like consumer electronic products, automotive industries, munitions, telecommunications, aerospace industries, and intelligent control systems.

Package and Pin Configuration



SOD123FL

Maximum Ratings T_A = 25°C unless otherwise specified

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	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

ELECTRICAL CHARACTERISTICS(T_A=25℃)

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Part Number		V_{RWM}	V_{BR}			I_R@V_{RWM}	V_C@I_{PP}	
			Min.	Max.	I_T			
UNI	BI	V	V	V	mA	uA	V	A
TP4LSMF6.0A	TP4LSMF6.0CA	6	6.67	7.37	10	50	10.3	38.8
TP4LSMF6.5A	TP4LSMF6.5CA	6.5	7.22	7.98	10	40	11.2	35.7
TP4LSMF7.0A	TP4LSMF7.0CA	7	7.78	8.6	10	40	12	33.3
TP4LSMF7.5A	TP4LSMF7.5CA	7.5	8.33	9.21	1	30	12.9	31
TP4LSMF8.0A	TP4LSMF8.0CA	8	8.89	9.83	1	5	13.6	29.4
TP4LSMF8.5A	TP4LSMF8.5CA	8.5	9.44	10.4	1	5	14.4	27.8
TP4LSMF9.0A	TP4LSMF9.0CA	9	10	11.1	1	0.5	15.4	26
TP4LSMF10A	TP4LSMF10CA	10	11.1	12.3	1	0.5	17	23.5
TP4LSMF11A	TP4LSMF11CA	11	12.2	13.5	1	0.5	18.2	22
TP4LSMF12A	TP4LSMF12CA	12	13.3	14.7	1	0.5	19.9	20.1
TP4LSMF13A	TP4LSMF13CA	13	14.4	15.9	1	0.1	21.5	18.6
TP4LSMF14A	TP4LSMF14CA	14	15.6	17.2	1	0.1	23.2	17.2
TP4LSMF15A	TP4LSMF15CA	15	16.7	18.5	1	0.1	24.4	16.4
TP4LSMF16A	TP4LSMF16CA	16	17.8	19.7	1	0.1	26	15.4
TP4LSFF17A	TP4LSFF17CA	17	18.9	20.9	1	0.1	27.6	14.5
TP4LSMF18A	TP4LSMF18CA	18	20	22.1	1	0.1	29.2	13.7
TP4LSMF20A	TP4LSMF20CA	20	22.2	24.5	1	0.1	32.4	12.3
TP4LSMF22A	TP4LSMF22CA	22	24.4	26.9	1	0.1	35.5	11.3
TP4LSMF24A	TP4LSMF24CA	24	26.7	29.5	1	0.1	38.9	10.3
TP4LSMF26A	TP4LSMF26CA	26	28.9	31.9	1	0.1	42.1	9.5
TP4LSMF28A	TP4LSMF28CA	28	31.1	34.4	1	0.1	45.4	8.8
TP4LSMF30A	TP4LSMF30CA	30	33.3	36.8	1	0.1	48.4	8.3
TP4LSMF33A	TP4LSMF33CA	33	36.7	40.6	1	0.1	53.3	7.5
TP4LSMF36A	TP4LSMF36CA	36	40	44.2	1	0.1	58.1	6.9
TP4LSMF40A	TP4LSMF40CA	40	44.4	49.1	1	0.1	64.5	6.2
TP4LSMF43A	TP4LSMF43CA	43	47.8	52.8	1	0.1	69.4	5.8
TP4LSMF45A	TP4LSMF45CA	45	50	55.3	1	0.1	72.2	5.5
TP4LSMF48A	TP4LSMF48CA	48	53.3	58.9	1	0.1	77.4	5.2
TP4LSMF51A	TP4LSMF51CA	51	56.7	62.7	1	0.1	82.4	4.9
TP4LSMF54A	TP4LSMF54CA	54	60	66.3	1	0.1	87.1	4.6
TP4LSMF58A	TP4LSMF58CA	58	64.4	71.2	1	0.1	93.6	4.3
TP4LSMF60A	TP4LSMF60CA	60	66.7	73.7	1	0.1	96.8	4.1
TP4LSMF64A	TP4LSMF64CA	64	71.1	78.6	1	0.1	103	3.9
TP4LSMF70A	TP4LSMF70CA	70	77.8	86.0	1	0.1	96.8	4.1
TP4LSMF75A	TP4LSMF75CA	75	83.3	78.6	1	0.1	103	3.9

RATINGS AND V-I CHARACTERISTICS CURVES (T_A=25°C, unless otherwise noted)

Fig. 1 - Peak Pulse Power Rating Curve

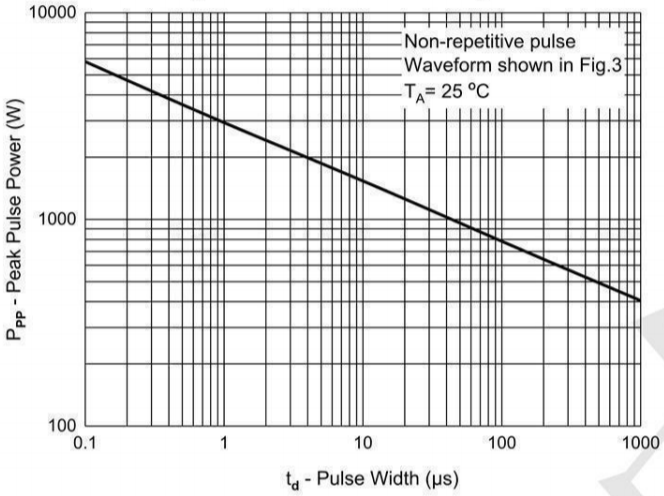


Fig. 2 - Typical Junction Capacitance

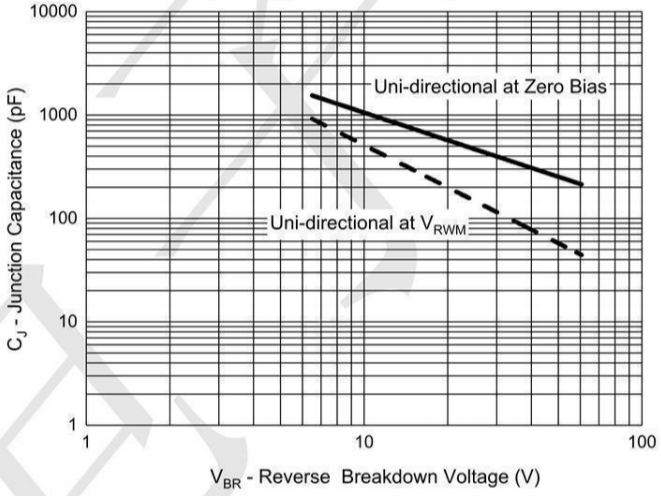


Fig. 3 - Pulse Waveform

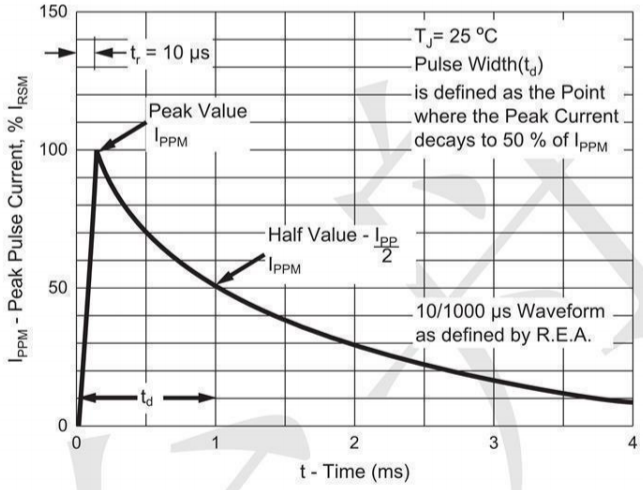
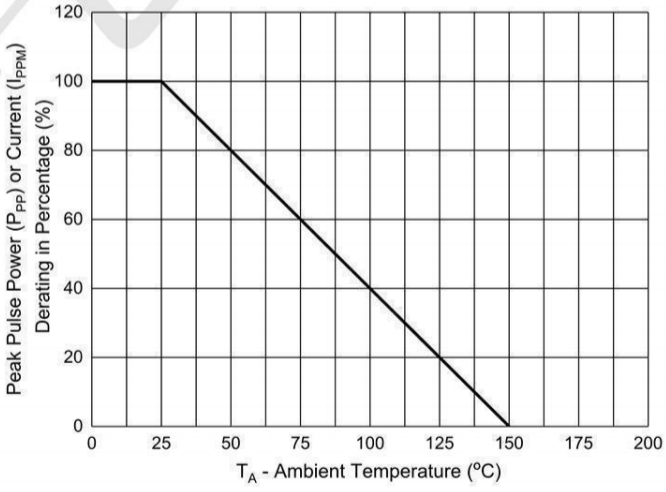
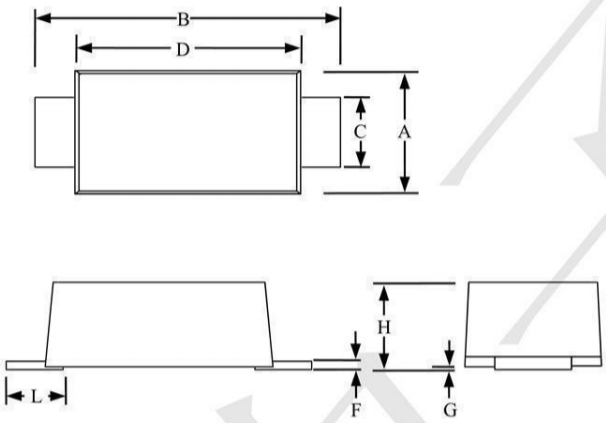


Fig. 4 - Pulse Derating Curve



Package Outline Dimensions: SOD-123FL



SOD-123FL						
Dimension	Inches			Millimeters		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.059		0.079	1.5		2
B	0.134		0.154	3.4		3.9
C	0.028		0.047	0.7		1.2
D	0.098		0.114	2.5		2.9
F	0.002		0.01	0.05		0.26
G	-		0.004	-		0.1
H	0.037		0.053	0.95		1.35
L	0.014		0.035	0.35		0.9