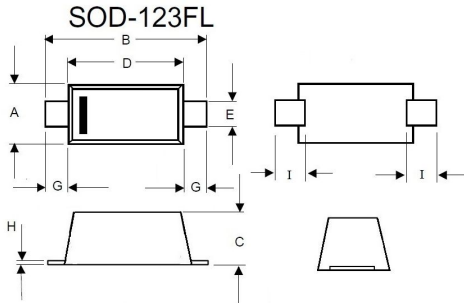


P2KASMF SERIES

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

STAND-OFF VOLTAGE - 12 TO 58 Volts

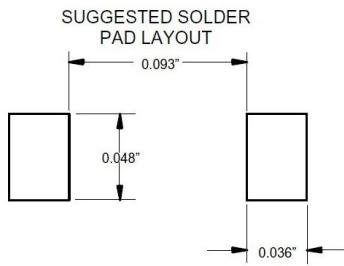
200 Watt Peak Pulse Power



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.055	.075	1.40	1.90	
B	.140	.152	3.55	3.85	
C	.035	.053	0.90	1.35	
D	.100	.122	2.55	3.10	
E	.020	.041	0.50	1.05	
G	.010	.022	0.25	0.55	
H	.004	.010	0.10	0.25	
I	.016	.028	0.40	0.70	

FEATURES

- ⊙ For surface mounted applications in order to optimize board space
- ⊙ Halogen-Free
- ⊙ RoHS compliant
- ⊙ Small, High Thermal Efficiency
- ⊙ Low clamping capability
- ⊙ Glass passivated junction
- ⊙ Fast response time: typically less than 1.0ps from 0 Volts to V(BR) for unidirectional types
- ⊙ High Temperature soldering: 260°C/40 seconds at terminals
- ⊙ AEC-Q101 qualified
- ⊙ Plastic package has Underwriters Laboratory Flammability 94V-O
- ⊙ Matte Tin Lead-free plated



MECHANICAL DATA

Case: JEDEC SOD-123FL. Molded plastic over glass passivated junction

Terminal: Solderable per MIL-STD-750, Method 2026

Polarity: Color band denoted positive end (cathode)

Standard Packaging: 8mm tape (EIA STD RS-481)

Weight: 0.00052 ounce, 0.0148 gram

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000µs waveform (Note 1,2 ,FIG.1)	P _{PPM}	Minimum 200	Watts
Peak Pulse Current of on 10/1000µs waveform (Note 1,FIG.3)	I _{PPM}	SEE TABLE 1	Amps
Peak Forward Surge Current,8.3ms Single Half Sine-Wave Superimposed on Rated Load,(JEDEC Method) (Note 2,3)	I _{FSM}	30	Amps
ESD Voltage(HBM)	V _{ESD}	>16	KV
Operating junction and Storage Temperature Range	T _J , T _{STG}	-55 to + 150	°C

Notes :

1.Non-repetitive current pulse , per Fig. 3 and derated above T_A = 25°C per Fig. 2 .

2.Mounted on 5.0mm²(0.03mm thick) Copper Pads to each terminal

3.8.3ms single half sine-wave , or equivalent square wave, Duty cycle = 4 pulses per minutes maximum.

P2KASMF SERIES
SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR
STAND-OFF VOLTAGE - 12 TO 58 Volts
200 Watt Peak Pulse Power

P2KASMF PART NUMBER	DEVICE MARKING CODE	REVERSE STAND- OFF VOLTAGE $V_{RWM}(V)$	BREAKDOWN VOLTAGE $V_{BR}(V) @ I_T$		TEST CURRENT I_T (mA)	MAXIMUM CLAMPING VOLTAGE $@ I_{pp} V_c(V)$	PEAK PULSE CURRENT I_{pp} (A)	REVERSE LEAKAGE $@ V_{RWM} I_R$ (μA)
			MIN	MAX				
P2KASMF12A	BEQ	12.0	13.30	14.70	1	19.9	10.1	2.5
P2KASMF13A	BGQ	13.0	14.40	15.90	1	21.5	9.3	1
P2KASMF14A	BKQ	14.0	15.60	17.20	1	23.2	8.6	1
P2KASMF15A	BMQ	15.0	16.70	18.50	1	24.4	8.2	1
P2KASMF16A	BPQ	16.0	17.80	19.70	1	26.0	7.7	1
P2KASMF17A	BRQ	17.0	18.90	20.90	1	27.6	7.2	1
P2KASMF18A	BTQ	18.0	20.00	22.10	1	29.2	6.8	1
P2KASMF20A	BVQ	20.0	22.20	24.50	1	32.4	6.2	1
P2KASMF22A	BXQ	22.0	24.40	26.90	1	35.5	5.6	1
P2KASMF24A	BZQ	24.0	26.70	29.50	1	38.9	5.1	1
P2KASMF26A	CEQ	26.0	28.90	31.90	1	42.1	4.8	1
P2KASMF28A	CGQ	28.0	31.10	34.40	1	45.4	4.4	1
P2KASMF30A	CKQ	30.0	33.30	36.80	1	48.4	4.1	1
P2KASMF33A	CMQ	33.0	36.70	40.60	1	53.3	3.8	1
P2KASMF36A	CPQ	36.0	40.00	44.20	1	58.1	3.4	1
P2KASMF40A	CRQ	40.0	44.40	49.10	1	64.5	3.1	1
P2KASMF43A	CTQ	43.0	47.80	52.80	1	69.4	2.9	1
P2KASMF45A	CVQ	45.0	50.00	55.30	1	72.7	2.8	1
P2KASMF48A	CXQ	48.0	53.30	58.90	1	77.4	2.6	1
P2KASMF51A	CZQ	51.0	56.70	62.70	1	82.4	2.4	1
P2KASMF54A	REQ	54.0	60.00	66.30	1	87.1	2.3	1
P2KASMF58A	RGQ	58.0	64.40	71.20	1	93.6	2.1	1

P2KASMF SERIES

RATINGS AND CHARACTERISTIC CURVES

Ratings and

Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig. 1 - Peak Pulse Power Rating

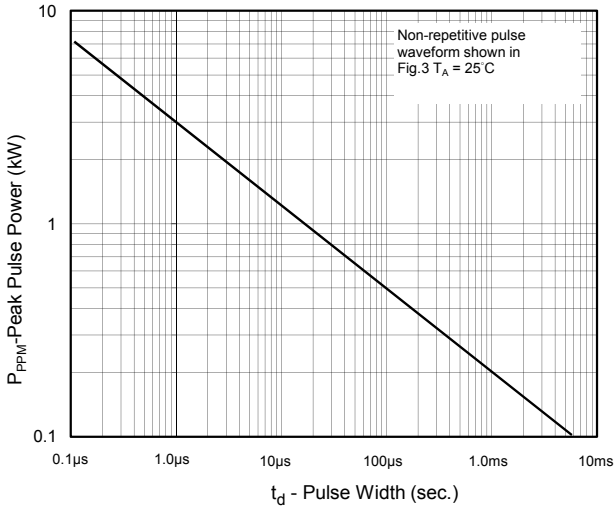


Fig. 2 - Pulse Derating Curve

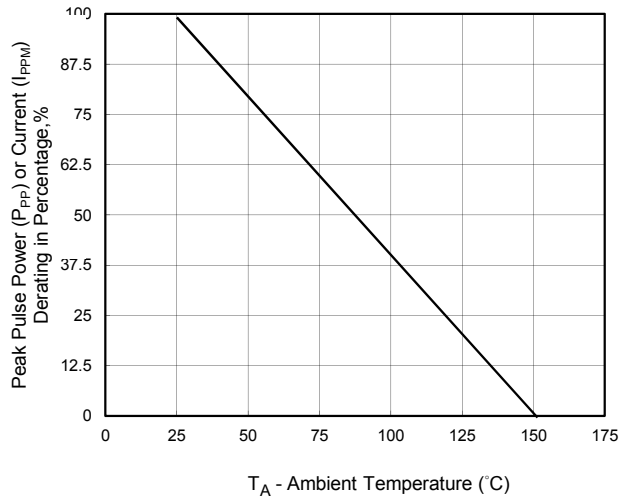


Fig. 3 - Pulse Waveform

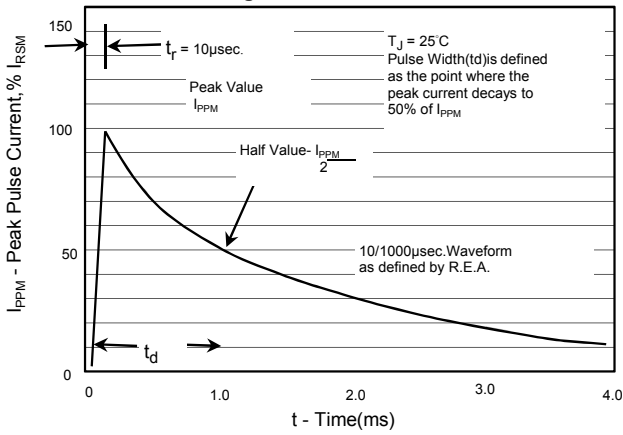


Fig. 4 - Steady State Power Derating Curve

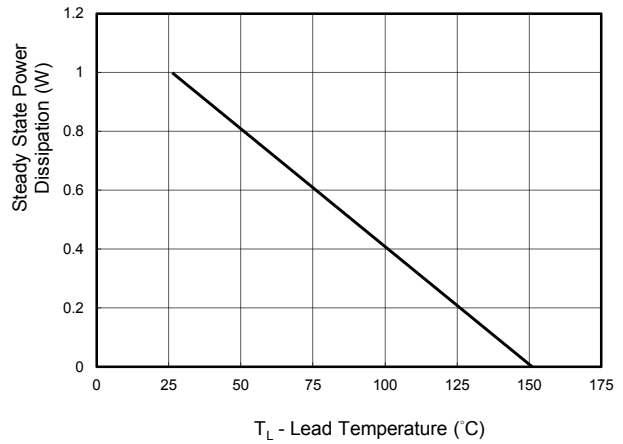
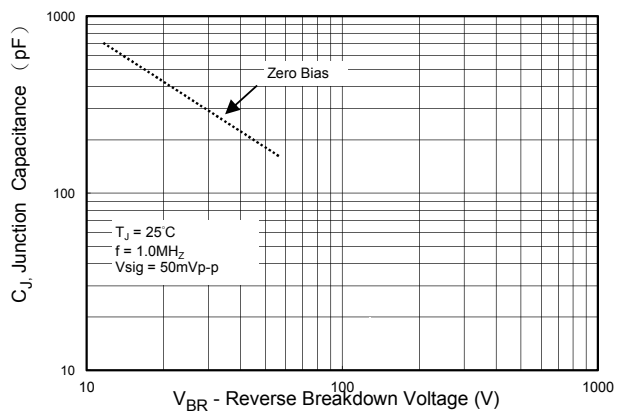


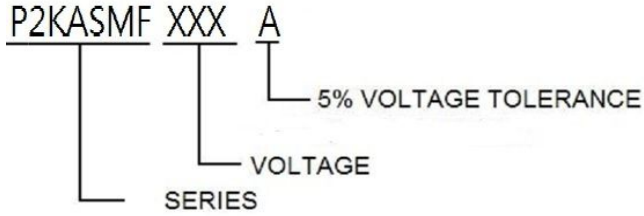
Figure 5. Typical Junction Capacitance



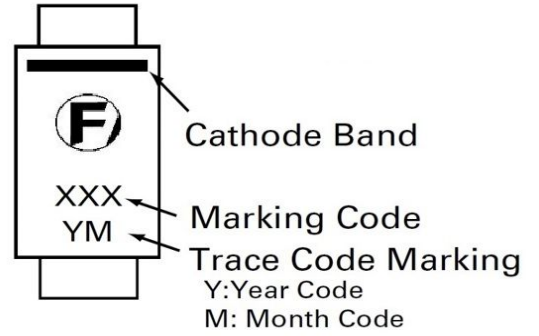
P2KASMF SERIES

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

Part Numbering System



Part Marking System



Packaging

Part number	Component Package	Quantity	Packaging Option	Packaging Specification
P2KASMFxxxX	SOD-123FL	2500	Tape & Reel - 8mm/ 7" tape	EIA STD RS-481