SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

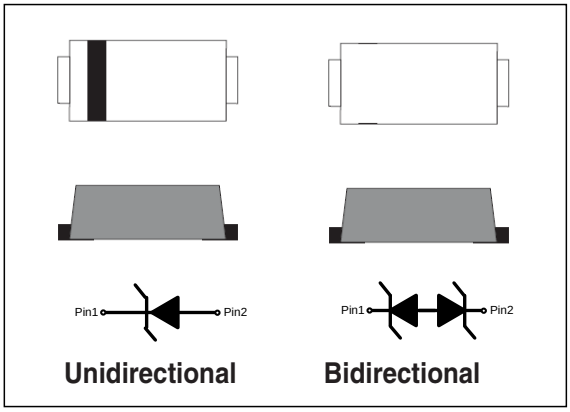
Super current **400 Watt Peak Pulse Power**

Features

* For surface mounted applications in order to optimize board space
* Low profile package
* Excellent clamping capability
* IEC61000-4-2 ESD 30kV Air,30kV contact compliance
* Protects one I/O line
* Lead-free parts meet RoHS requirments

Applications

* Personal digital assistants (PDA)
* Cellular handsets & Accessories
* Portable devices
* Portable instrumentation



Mechanical data

* **Epoxy :** UL94-V0 rated flame retardant
* **Case :** Molded plastic, SOD123-FL/MINI SMA
* **Terminals :**Plated terminals, solderable per MIL-STD-750,Method 2026
* **Polarity :** Indicated by cathode band; Bidirectional without color band.
* **Mounting Position :** Any
* **Weight :** Approximated 0.0155 gram

Order information

Device	Package	Shipping
SODAXXV/B-PH	SOD-123FL	3000/Tape&Reel

1.Maximum ratings and Electrical Characteristics(AT T =25 AoC unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNITS
Peak Power Dissipation at T_A=25°C, T_P=1ms(Note 1)	P_{PPM}	Minimum 400	Watts
Steady State Power Dissipation at T_L=75°C(Note 2)	$P_{M(AV)}$	3.3	Watts
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load(JECED Method) (Note 3)	I_{FSM}	40	Amps
Operating Temperature Range	T_J,	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +175	°C

NOTES:

1. Non-repetitive current pulse, per Fig. 3 and derated above TA=25°C per Fig. 2.
2. 8.0mm2 (.013mm thick) land areas
3. 8.3ms single half sine-wave, duty cycle= 4 pulses per minutes maximum.

UNI-DIRECTIONAL PART NUMBER	Bidirectional-DIRECTIONAL PART NUMBER	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @IPP VC (V)	REVERSE LEAKAGE @VRWM IR (uA)
SODA5.0V-PH	SODA5.0B-PH	5	6.4	7	10	9.2	400
SODA6.0V-PH	SODA6.0B-PH	6	6.67	7.37	10	10.3	400
SODA6.5V-PH	SODA6.5B-PH	6.5	7.22	7.98	10	11.2	250
SODA7.0V-PH	SODA7.0B-PH	7	7.78	8.6	10	12	100
SODA7.5V-PH	SODA7.5B-PH	7.5	8.33	9.21	1	12.9	50
SODA8.0V-PH	SODA8.0B-PH	8	8.89	9.83	1	13.6	25
SODA8.5V-PH	SODA8.5B-PH	8.5	9.44	10.4	1	14.4	10
SODA9.0V-PH	SODA9.0B-PH	9	10	11.1	1	15.4	5
SODA10V-PH	SODA10B-PH	10	11.1	12.3	1	17	2.5
SODA11V-PH	SODA11B-PH	11	12.2	13.5	1	18.2	2.5
SODA12V-PH	SODA12B-PH	12	13.3	14.7	1	19.9	2.5
SODA13V-PH	SODA13B-PH	13	14.4	15.9	1	21.5	1
SODA14V-PH	SODA14B-PH	14	15.6	17.2	1	23.2	1
SODA15V-PH	SODA15B-PH	15	16.7	18.5	1	24.4	1
SODA16V-PH	SODA16B-PH	16	17.8	19.7	1	26	1
SODA17V-PH	SODA17B-PH	17	18.9	20.9	1	27.6	1
SODA18V-PH	SODA18B-PH	18	20	22.1	1	29.2	1
SODA20V-PH	SODA20B-PH	20	22.2	24.5	1	32.4	1
SODA22V-PH	SODA22B-PH	22	24.4	26.9	1	35.5	1
SODA24V-PH	SODA24B-PH	24	26.7	29.5	1	38.9	1
SODA26V-PH	SODA26B-PH	26	28.9	31.9	1	42.1	1
SODA28V-PH	SODA28B-PH	28	31.1	34.4	1	45.4	1
SODA30V-PH	SODA30B-PH	30	33.3	36.8	1	48.4	1
SODA33V-PH	SODA33B-PH	33	36.7	40.6	1	53.3	1
SODA36V-PH	SODA36B-PH	36	40	44.2	1	58.1	1
SODA40V-PH	SODA40B-PH	40	44.4	49.1	1	64.5	1
SODA43V-PH	SODA43B-PH	43	47.8	52.8	1	69.4	1
SODA45V-PH	SODA45B-PH	45	50	55.3	1	72.7	1
SODA48V-PH	SODA48B-PH	48	53.3	58.9	1	77.4	1
SODA51V-PH	SODA51B-PH	51	56.7	62.7	1	82.4	1
SODA54V-PH	SODA54B-PH	54	60	66.3	1	87.1	1
SODA58V-PH	SODA58B-PH	58	64.4	71.2	1	93.6	1
SODA60V-PH	SODA60B-PH	60	66.7	73.7	1	96.8	1
SODA64V-PH	SODA64B-PH	64	71.1	78.6	1	103	1
SODA70V-PH	SODA70B-PH	70	77.8	86	1	113	1
SODA75V-PH	SODA75B-PH	75	83.3	92.1	1	121	1
SODA78V-PH	SODA78B-PH	78	86.7	95.8	1	126	1
SODA85V-PH	SODA85B-PH	85	94.4	104	1	137	1
SODA90V-PH	SODA90B-PH	90	100	111	1	146	1
SODA100V-PH	SODA100B-PH	100	111	123	1	162	1
SODA110V-PH	SODA110B-PH	110	122	135	1	177	1
SODA120V-PH	SODA120B-PH	120	133	147	1	193	1
SODA130V-PH	SODA130B-PH	130	144	159	1	209	1
SODA150V-PH	SODA150B-PH	150	167	185	1	243	1
SODA160V-PH	SODA160B-PH	160	178	197	1	259	1
SODA170V-PH	SODA170B-PH	170	189	209	1	275	1

2.Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1-Peak Pulse Power Rating Curve

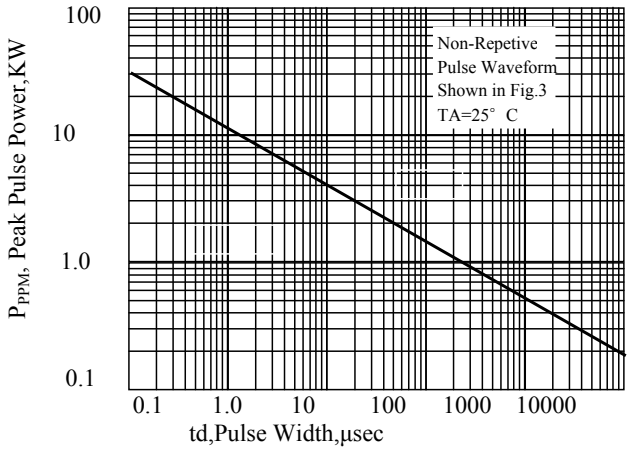


Fig. 2-Power Derating Curve

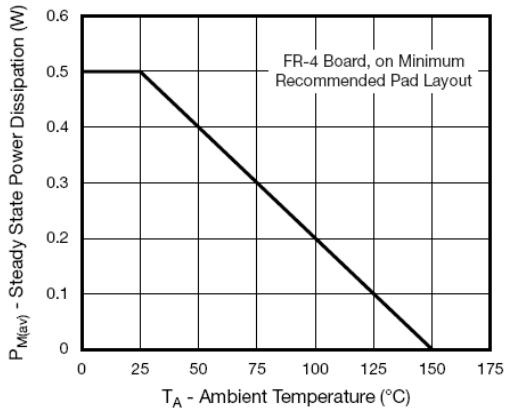


Fig. 3-Pulse Waveform

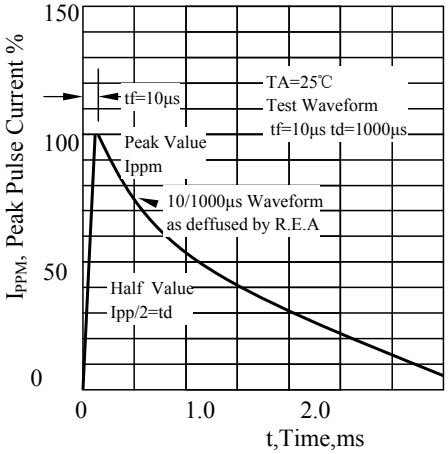


Fig. 4-Typical Junction Capacitance
Unidirectional

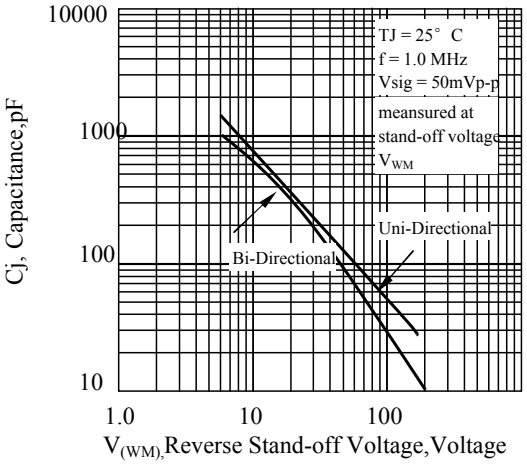


Fig 5. – typical transient thermal impedance

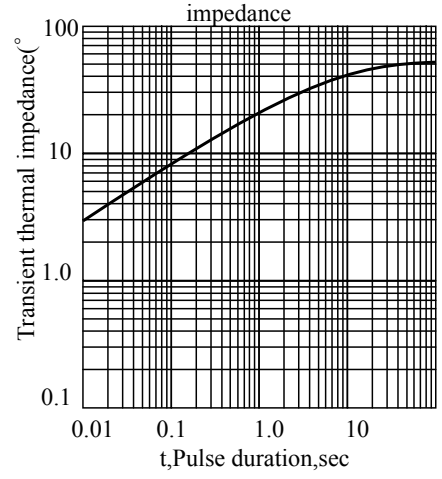
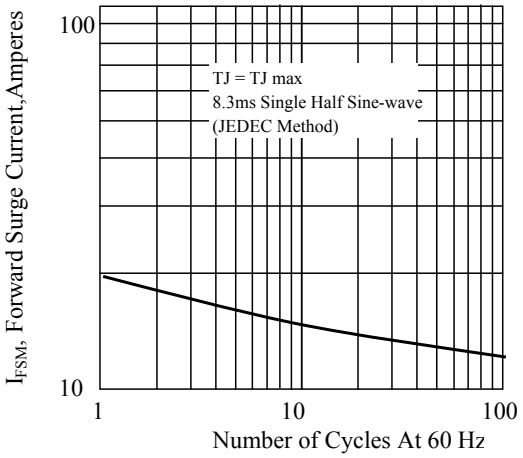
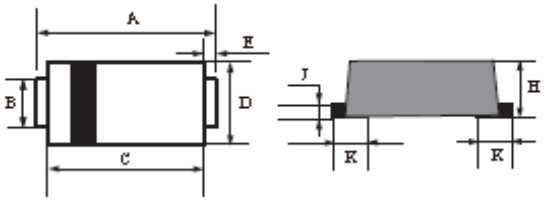


Fig. 6-Maximum Non-Repetitive Peak
Forward Surge Current Uniderictional



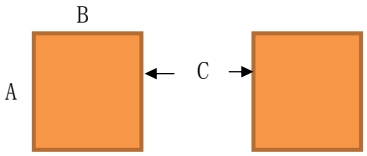
3. dimension:

SOD123-FL



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	3.5	3.9	0.138	0.159
B	0.75	1.10	0.029	0.045
C	2.6	3.0	0.103	0.119
D	1.6	2.0	0.063	0.079
E	0.45Typ		0.018Typ	
H	0.9	1.4	0.036	0.047
J	0.12	0.22	0.005	0.009
K	0.8Typ		0.032Typ	

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD123-FL	0.044(1.10	0.040(1.00)	0.079(2.00)