Working Voltage: 5.0 to 350 V
Peak Pulse Power: 200 W

Surface Mount Transient Voltage Suppressors

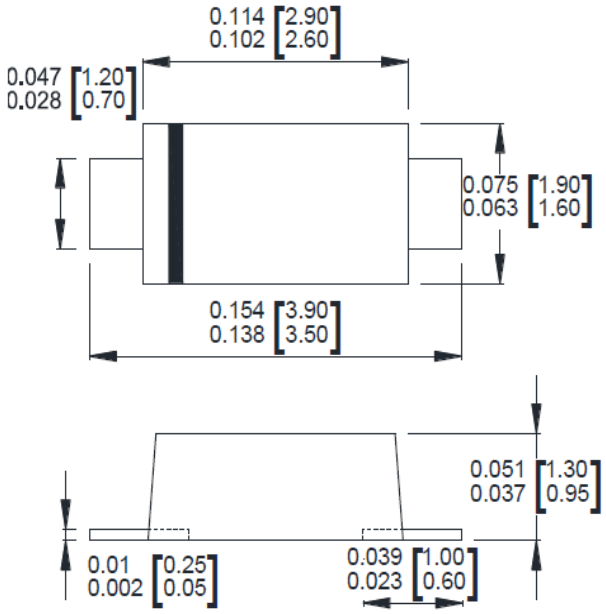
Features

- Glass passivated chip
- 200 W peak pulse power capability with a 10/1000 μs waveform, repetitive rate (duty cycle):0.01 %
- Low leakage
- Uni and Bidirectional unit
- Excellent clamping capability
- Very fast response time
- RoHS compliant

Mechanical Data

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end except Bipolar
- Mounting position: Any

SOD-123



Maximum Ratings(T_A=25℃ unless otherwise noted)

Parameter	Symbol	Value	UNIT
Peak power dissipation with a 10/1000μs waveform(1)	P_{PP}	200	W
Peak power dissipation with a 8/20μs waveform(1)	P_{PP}	1000	W
Peak pulse current wih a 10/1000μs waveform(1)	I_{PP}	See Next Table	A
Power dissipation on infinite heatsink at T_L = 75 °C	P_D	0.4	W
Peak forward surge current, 8.3 ms single half sine-wave unidirectional only(2)	I_{FSM}	20	A
Maximum instantaneous forward voltage at 25 A for unidirectional only	V_F	3.5	V
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to +150	°C

Note:

(1)Non-repetitive current pulse per Fig.5 and derated above T_A= 25 °C per Fig.1

(2)Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum

Ratings and Characteristics Curves (T_A=25℃ unless otherwise noted)

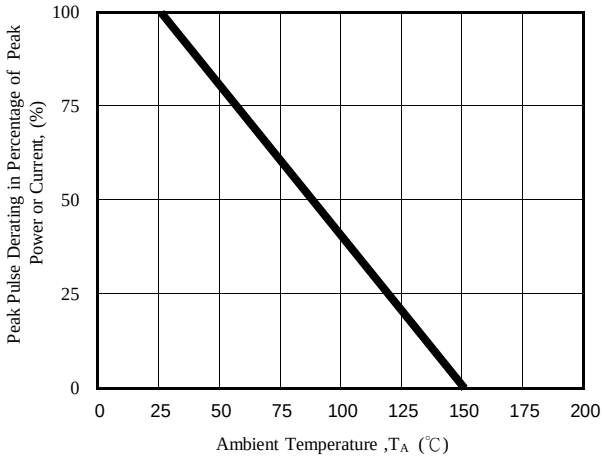


Fig. 1 - Pulse Derating Curve

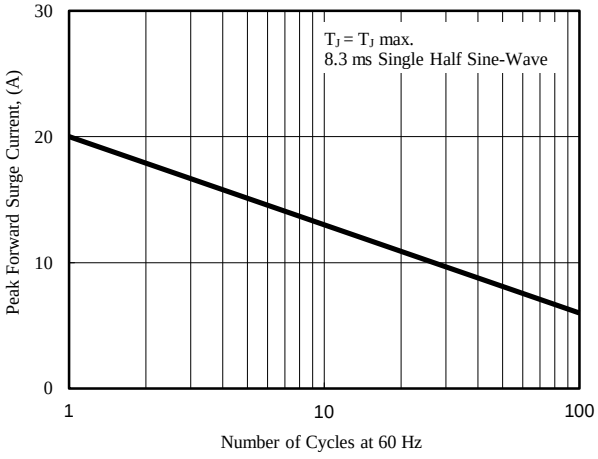


Fig. 2 - Maximum Non-Repetitive Surge Current

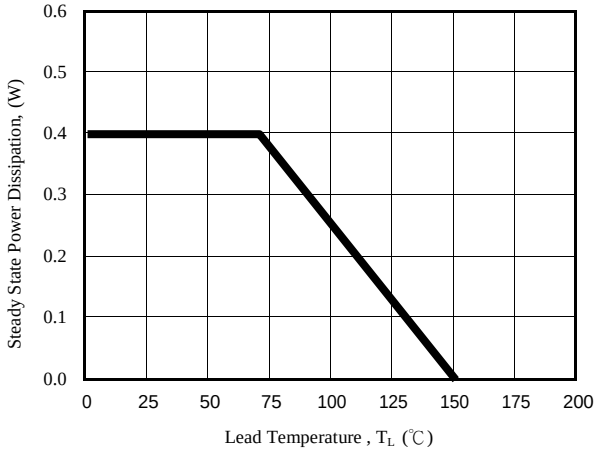


Fig. 3 - Steady State Power Derating Curve

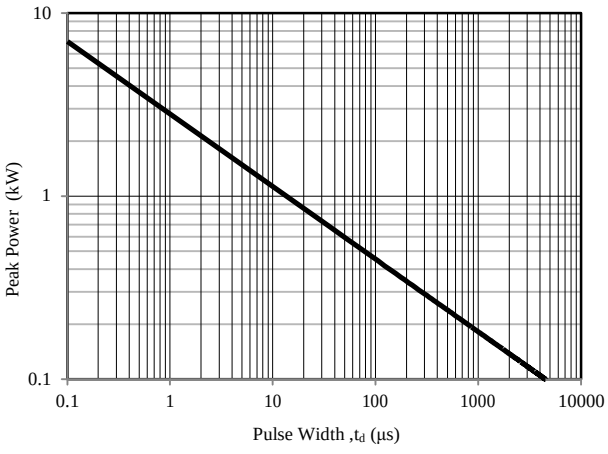


Fig. 4 - Peak Pulse Power Rating Curve

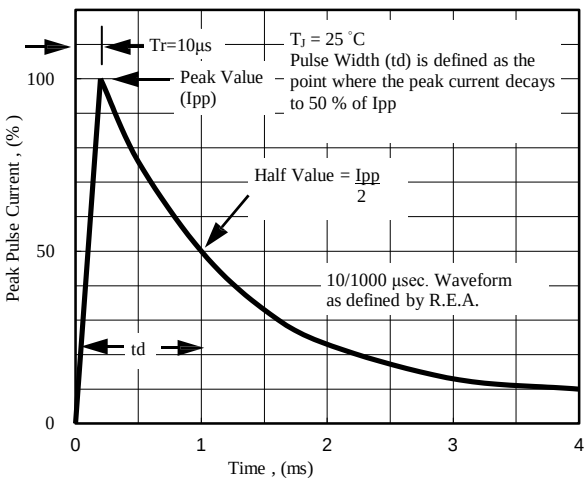


Fig. 5 - Pulse Waveform

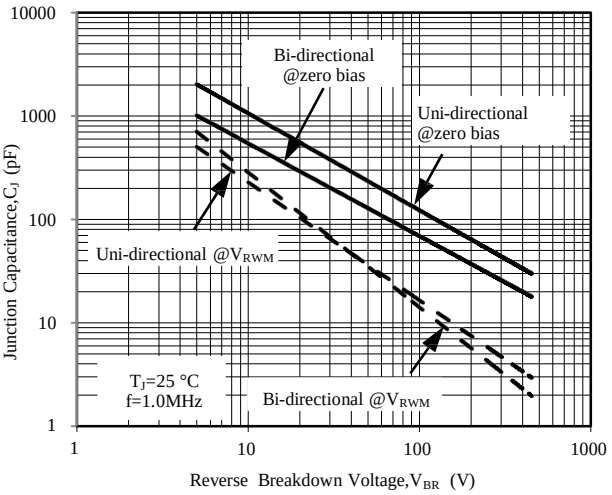


Fig. 6 - Typical Junction Capacitance

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

Part Number (Uni)	Part Number (Bi)	Device Marking Code		Breakdown Voltage V_{BR} @I_T			Maximum Reverse Leakage I_R @V_{RWM} (uA)	Working Peak Reverse Voltage V_{RWM} (V)	Maximum Reverse Surge Current I_{PP} (A)	Maximum Clamping Voltage V_C @I_{PP} (V)
		Uni	Bi	Min (V)	Max (V)	I_T (mA)				
SJD12A05L01	SJD12C05L01	FE	KE	6.40	7.00	10	400	5.0	21.74	9.2
SJD12A06L01	SJD12C06L01	FG	KG	6.67	7.37	10	400	6.0	19.42	10.3
SJD12A6.5L01	SJD12C6.5L01	FK	KK	7.22	7.98	10	250	6.5	17.86	11.2
SJD12A07L01	SJD12C07L01	FM	KM	7.78	8.60	10	100	7.0	16.67	12.0
SJD12A7.5L01	SJD12C7.5L01	FP	KP	8.33	9.21	1	50	7.5	15.50	12.9
SJD12A08L01	SJD12C08L01	FR	KR	8.89	9.83	1	25	8.0	14.71	13.6
SJD12A8.5L01	SJD12C8.5L01	FT	KT	9.44	10.40	1	10	8.5	13.89	14.4
SJD12A09L01	SJD12C09L01	FV	KV	10.00	11.10	1	5	9.0	12.99	15.4
SJD12A10L01	SJD12C10L01	FX	KX	11.10	12.30	1	2.5	10.0	11.76	17.0
SJD12A11L01	SJD12C11L01	FZ	KZ	12.20	13.50	1	2.5	11.0	10.99	18.2
SJD12A12L01	SJD12C12L01	HE	LE	13.30	14.70	1	2.5	12.0	10.05	19.9
SJD12A13L01	SJD12C13L01	HG	LG	14.40	15.90	1	1	13.0	9.30	21.5
SJD12A14L01	SJD12C14L01	HK	LK	15.60	17.20	1	1	14.0	8.62	23.2
SJD12A15L01	SJD12C15L01	HM	LM	16.70	18.50	1	1	15.0	8.20	24.4
SJD12A16L01	SJD12C16L01	HP	LP	17.80	19.70	1	1	16.0	7.69	26.0
SJD12A17L01	SJD12C17L01	HR	LR	18.90	20.90	1	1	17.0	7.25	27.6
SJD12A18L01	SJD12C18L01	HT	LT	20.00	22.10	1	1	18.0	6.85	29.2
SJD12A19L01	SJD12C19L01	HB	LB	21.10	23.30	1	1	19.0	6.54	30.6
SJD12A20L01	SJD12C20L01	HV	LV	22.20	24.50	1	1	20.0	6.17	32.4
SJD12A22L01	SJD12C22L01	HX	LX	24.40	26.90	1	1	22.0	5.63	35.5
SJD12A24L01	SJD12C24L01	HZ	LZ	26.70	29.50	1	1	24.0	5.14	38.9
SJD12A26L01	SJD12C26L01	JE	ME	28.90	31.90	1	1	26.0	4.75	42.1
SJD12A28L01	SJD12C28L01	JG	MG	31.10	34.40	1	1	28.0	4.41	45.4
SJD12A30L01	SJD12C30L01	JK	MK	33.30	36.80	1	1	30.0	4.13	48.4
SJD12A33L01	SJD12C33L01	JM	MM	36.70	40.60	1	1	33.0	3.75	53.3
SJD12A36L01	SJD12C36L01	JP	MP	40.00	44.20	1	1	36.0	3.44	58.1
SJD12A40L01	SJD12C40L01	JR	MR	44.40	49.10	1	1	40.0	3.10	64.5
SJD12A43L01	SJD12C43L01	JT	MT	47.80	52.80	1	1	43.0	2.88	69.4
SJD12A45L01	SJD12C45L01	JV	MV	50.00	55.30	1	1	45.0	2.75	72.7
SJD12A48L01	SJD12C48L01	JX	MX	53.30	58.90	1	1	48.0	2.58	77.4
SJD12A51L01	SJD12C51L01	JZ	MZ	56.70	62.70	1	1	51.0	2.43	82.4
SJD12A54L01	SJD12C54L01	XE	NE	60.00	66.30	1	1	54.0	2.30	87.1
SJD12A58L01	SJD12C58L01	XG	NG	64.40	71.20	1	1	58.0	2.14	93.6
SJD12A60L01	SJD12C60L01	XK	NK	66.70	73.70	1	1	60.0	2.07	96.8
SJD12A64L01	SJD12C64L01	XM	NM	71.10	78.60	1	1	64.0	1.94	103.0
SJD12A70L01	SJD12C70L01	XP	NP	77.80	86.00	1	1	70.0	1.77	113.0
SJD12A75L01	SJD12C75L01	XR	NR	83.30	92.10	1	1	75.0	1.65	121.0
SJD12A78L01	SJD12C78L01	XT	NT	86.70	95.80	1	1	78.0	1.59	126.0
SJD12A80L01	SJD12C80L01	XB	NB	88.80	97.60	1	1	80.0	1.55	129.0
SJD12A85L01	SJD12C85L01	XV	NV	94.40	104.00	1	1	85.0	1.46	137.0
SJD12A90L01	SJD12C90L01	XX	NX	100.00	111.00	1	1	90.0	1.37	146.0
SJD12A100L01	SJD12C100L01	XZ	NZ	111.00	123.00	1	1	100.0	1.23	162.0
SJD12A110L01	SJD12C110L01	TE	PE	122.00	135.00	1	1	110.0	1.13	177.0
SJD12A120L01	SJD12C120L01	TG	PG	133.00	147.00	1	1	120.0	1.04	193.0
SJD12A130L01	SJD12C130L01	TK	PK	144.00	159.00	1	1	130.0	0.96	209.0
SJD12A140L01	SJD12C140L01	TB	PB	155.00	171.00	1	1	140.0	0.89	224.0
SJD12A150L01	SJD12C150L01	TM	PM	167.00	185.00	1	1	150.0	0.82	243.0
SJD12A160L01	SJD12C160L01	TP	PP	178.00	197.00	1	1	160.0	0.77	259.0
SJD12A170L01	SJD12C170L01	TR	PR	189.00	209.00	1	1	170.0	0.73	275.0
SJD12A180L01	SJD12C180L01	TT	PT	200.00	220.00	1	1	180.0	0.68	292.0
SJD12A190L01	SJD12C190L01	TV	PV	211.00	232.00	1	1	190.0	0.65	308.0
SJD12A200L01	SJD12C200L01	TX	PX	224.00	247.00	1	1	200.0	0.62	324.0
SJD12A220L01	SJD12C220L01	TZ	PZ	246.00	272.00	1	1	220.0	0.56	356.0
SJD12A250L01		YE		279.00	309.00	1	1	250.0	0.50	405.0
SJD12A300L01		YG		335.00	371.00	1	1	300.0	0.41	486.0
SJD12A350L01		YK		391.00	432.00	1	1	350.0	0.36	567.0

Note:

1. The available parts are "A" type only,the parts without A(V_{BR} is ±10%) is not available
2. Add suffix 'C 'or ' CA ' after part number to specify Bi-directional devices
3. For Bi-Directional devices having V_R of 10 volts and under, the I_R limit is double