

RoHS Compliant Product

A suffix of "-C" specifies halogen-free and lead-free

FEATURES

- For surface mounted applications in order to optimize board space
- Low profile package
- Excellent clamping capability
- IEC61000-4-2 ESD 15kV Air, 8kV contact compliance
- Protects one I/O line

MECHANICAL DATA

- **Epoxy** : UL94-V0 rated flame retardant
- **Case** : Molded plastic
- **Terminals** : Tin Plated, solderable per MIL-STD-750, Method 2026
- **Polarity** : Indicated by cathode band
- **Mounting Position** : Any
- **Weight** : Approximated 0.0155 gram

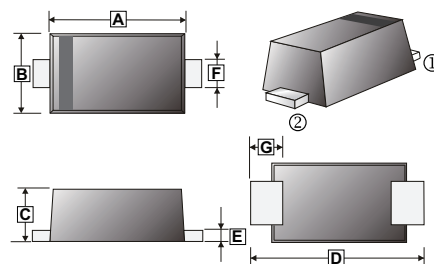
APPLICATION

- Personal digital assistants (PDA)
- Cellular handsets & Accessories
- Portable devices
- Portable instrumentation
- Handhelds and notebooks We declare that the material of product is Digital cameras

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123RL	3K	7" inch

SOD-123RL



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.60	3.10	E	0.10	0.30
B	1.60	2.00	F	0.75	0.95
C	0.90	1.25	G	0.8 Typ.	
D	3.50	3.90			

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Ratings	Symbol	Value	Units
Peak Power Dissipation @ $T_A=25^\circ\text{C}$, $T_P=1\text{ms}$ ¹	P_{PK}	200 (Min.)	W
Steady State Power Dissipation at $T_L=75^\circ\text{C}$ ²	$P_{M(AV)}$	0.5	W
Peak Forward Surge Current @ 8.3ms single Half Sine-Wave superimposed on rated load(JEDEC method) ³	I_{FSM}	20	A
Operating and Storage Temperature Range	T_J, T_{STG}	-55 ~ 150, -55~175	°C

Notes:

1. Non-repetitive current pulse, per Fig. 3 and derated above $T_A=25^\circ\text{C}$ per Fig. 2.
2. 8.0mm^2 (.013mm thick) land areas
3. 8.3ms single half sine-wave, duty cycle= 4 pulses per minutes maximum.

ELECTRICAL CHARACTERISTICS (Rating TA=25°C unless otherwise specified)

Part Number		Marking Code		Reverse Stand-Off Voltage V _{RWM}	Breakdown Voltage V _{BR} @ I _T		Test Current	Maximum Clamping Voltage V _C @ I _{PP}	Reverse Leakage I _R @ V _{RWM}
					Min	Max			
Uni- direction	Bi- direction	Uni	Bi	V	V	V	mA	V	µA
SSDJ5.0A	SSDJ5.0CA	KE	AE	5	6.40	7.00	10	9.2	400
SSDJ6.0A	SSDJ6.0CA	KG	AG	6	6.67	7.37	10	10.3	400
SSDJ6.5A	SSDJ6.5CA	KK	AK	6.5	7.22	7.98	10	11.2	250
SSDJ7.0A	SSDJ7.0CA	KM	AM	7	7.78	8.60	10	12.0	100
SSDJ7.5A	SSDJ7.5CA	KP	AP	7.5	8.33	9.21	1	12.9	50
SSDJ8.0A	SSDJ8.0CA	KR	AR	8	8.89	9.83	1	13.6	25
SSDJ8.5A	SSDJ8.5CA	KT	AT	8.5	9.44	10.4	1	14.4	10
SSDJ9.0A	SSDJ9.0CA	KV	AV	9	10.0	11.1	1	15.4	5
SSDJ10A	SSDJ10CA	KX	AX	10	11.1	12.3	1	17.0	2.5
SSDJ11A	SSDJ11CA	KZ	AZ	11	12.2	13.5	1	18.2	2.5
SSDJ12A	SSDJ12CA	LE	BE	12	13.3	14.7	1	19.9	2.5
SSDJ13A	SSDJ13CA	LG	BG	13	14.4	15.9	1	21.5	1
SSDJ14A	SSDJ14CA	LK	BK	14	15.6	17.2	1	23.2	1
SSDJ15A	SSDJ15CA	LM	BM	15	16.7	18.5	1	24.4	1
SSDJ16A	SSDJ16CA	LP	BP	16	17.8	19.7	1	26.0	1
SSDJ17A	SSDJ17CA	LR	BR	17	18.9	20.9	1	27.6	1
SSDJ18A	SSDJ18CA	LT	BT	18	20.0	22.1	1	29.2	1
SSDJ20A	SSDJ20CA	LV	BV	20	22.2	24.5	1	32.4	1
SSDJ22A	SSDJ22CA	LX	BX	22	24.4	26.9	1	35.5	1
SSDJ24A	SSDJ24CA	LZ	BZ	24	26.7	29.5	1	38.9	1
SSDJ26A	SSDJ26CA	ME	CE	26	28.9	31.9	1	42.1	1
SSDJ28A	SSDJ28CA	MG	CG	28	31.1	34.4	1	45.4	1
SSDJ30A	SSDJ30CA	MK	CK	30	33.3	36.8	1	48.4	1
SSDJ33A	SSDJ33CA	MM	CM	33	36.7	40.6	1	53.3	1
SSDJ36A	SSDJ36CA	MP	CP	36	40.0	44.2	1	58.1	1
SSDJ40A	SSDJ40CA	MR	CR	40	44.4	49.1	1	64.5	1
SSDJ43A	SSDJ43CA	MT	CT	43	47.8	52.8	1	69.4	1
SSDJ45A	SSDJ45CA	MV	CV	45	50.0	55.3	1	72.7	1
SSDJ48A	SSDJ48CA	MX	CX	48	53.3	58.9	1	77.4	1
SSDJ51A	SSDJ51CA	MZ	CZ	51	56.7	62.7	1	82.4	1

ELECTRICAL CHARACTERISTICS (Rating TA=25°C unless otherwise specified)

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					Min	Max			
Uni-direction	Bi-direction	Uni	Bi	V	V	V	μA	V	μA
SSDJ54A	SSDJ54CA	NE	DE	54	60.0	66.3	1	87.1	1
SSDJ58A	SSDJ58CA	NG	DG	58	64.4	71.2	1	93.6	1
SSDJ60A	SSDJ60CA	NK	DK	60	66.7	73.7	1	96.8	1
SSDJ64A	SSDJ64CA	NM	DM	64	71.1	78.6	1	103	1
SSDJ70A	SSDJ70CA	NP	DP	70	77.8	86.0	1	113	1
SSDJ75A	SSDJ75CA	NR	DR	75	83.3	92.1	1	121	1
SSDJ78A	SSDJ78CA	NT	DT	78	86.7	95.8	1	126	1
SSDJ85A	SSDJ85CA	NV	DV	85	94.4	104	1	137	1
SSDJ90A	SSDJ90CA	NX	DX	90	100	111	1	146	1
SSDJ100A	SSDJ100CA	NZ	DZ	100	111	123	1	162	1
SSDJ110A	SSDJ110CA	PE	EE	110	122	135	1	177	1
SSDJ120A	SSDJ120CA	PG	EG	120	133	147	1	193	1
SSDJ130A	SSDJ130CA	PK	EK	130	144	159	1	209	1
SSDJ150A	SSDJ150CA	PM	EM	150	167	185	1	243	1
SSDJ160A	SSDJ160CA	PP	EP	160	178	197	1	259	1
SSDJ170A	SSDJ170CA	PR	ER	170	189	209	1	275	1

RATINGS AND CHARACTERISTIC CURVES

Fig. 1-Peak Pulse Power Rating Curve

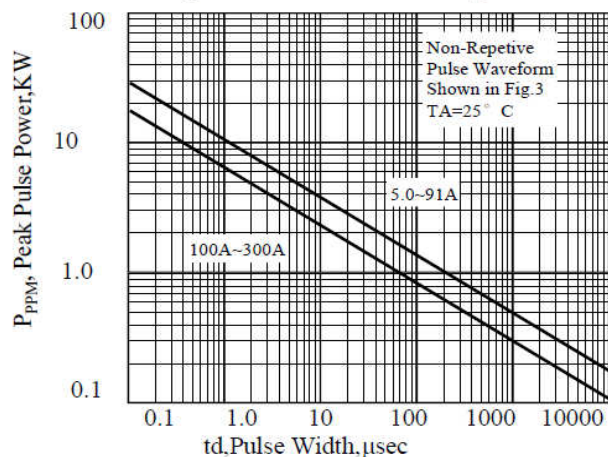


Fig. 2-Power Derating Curve

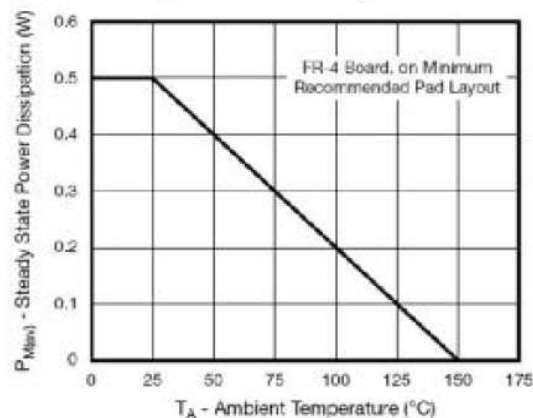


Fig. 3-Pulse Waveform

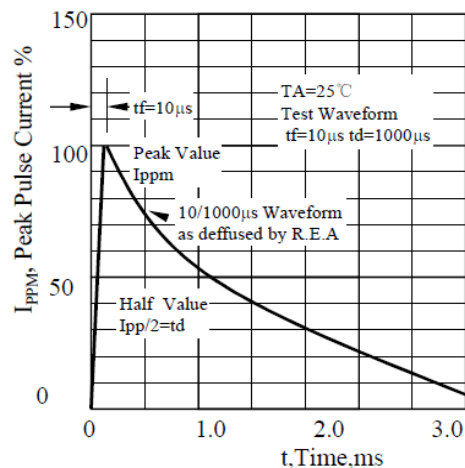


Fig. 4-Typical Junction Capacitance Unidirectional

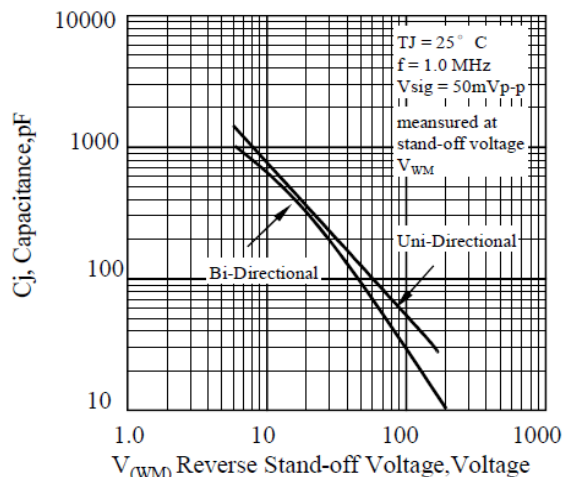


Fig 5. - typical transient thermal impedance

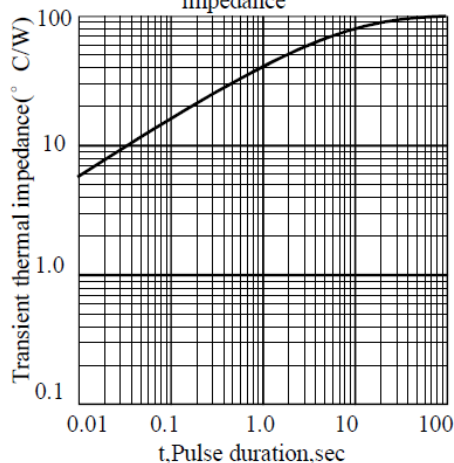


Fig. 6-Maximum Non-Repetitive Peak Forward Surge Current Unidirectional

