

**Features**

- Up to 4 I/O Lines
- Low Clamping Voltage
- Low Capacitance
- Ultra Low Leakage
- Halogen Free. “Green” Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C

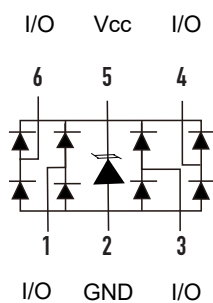
MCC Part Number	Device Marking
SRV33-4L	SRV33

IEC61000-4-2(ESD)	Air Contact	±30KV ±30KV
Peak Pulse Current(8/20µs)	I <sub>PP</sub>	22A
Peak Pulse Power (8/20µs)	P <sub>PK</sub>	300W

Note:

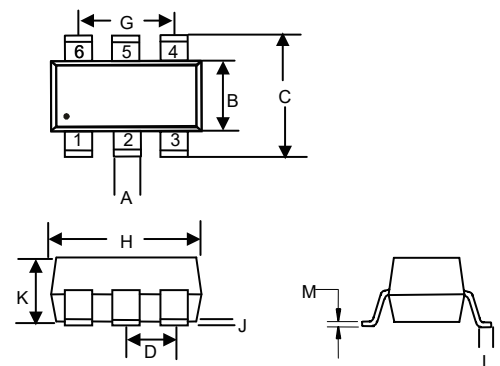
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

**Internal Structure**



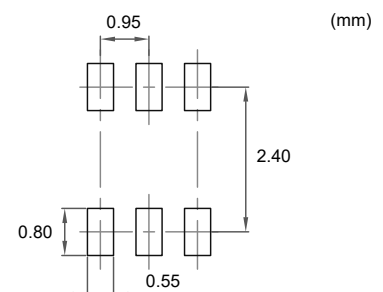
**ESD Protection Device**

**SOT23-6L**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.012	0.020	0.30	0.50	
B	0.051	0.070	1.30	1.80	
C	0.087	0.126	2.20	3.20	
D		0.037		0.95	TYP.
G		0.074		1.90	TYP.
H	0.106	0.122	2.70	3.10	
J	0.002	0.006	0.05	0.15	
K	0.030	0.051	0.75	1.30	
L	0.012	0.024	0.30	0.60	
M	0.003	0.008	0.08	0.22	

**Suggested Solder Pad Layout**



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	$V_{RWM}$	Pin 5 to Pin 2			3.3	V
Punch-Through Voltage	$V_{PT}$	$I_T=2\mu A$ , Pin 5 to Pin 2	3.5		5.3	V
Snap-Back Voltage	$V_{SB}$	$I_{SB}=50mA$	2.8			V
Reverse Leakage Current	$I_R$	$V_{RWM}=3.3V$ , Pin 5 to Pin 2			0.5	$\mu A$
Clamping Voltage	$V_C$	$I_{PP}=1A$ , $t_p=8/20\mu s$ , I/O to GND			6	V
Clamping Voltage	$V_C$	$I_{PP}=22A$ , $t_p=8/20\mu s$ , I/O to GND			14	V
Junction Capacitance	$C_J$	$V_R=0V$ , $f=1MHz$ , I/O to GND		3	5	pF
Junction Capacitance	$C_J$	$V_R=0V$ , $f=1MHz$ , I/O to I/O		1.5		pF

## Curve Characteristics

Fig. 1 - 8 X 20 $\mu$ s Pulse Waveform

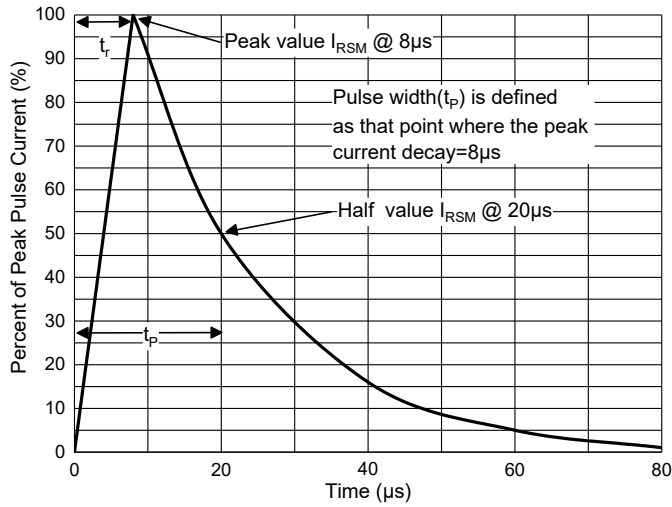


Fig. 2 - Non-Repetitive Peak Pulse Power

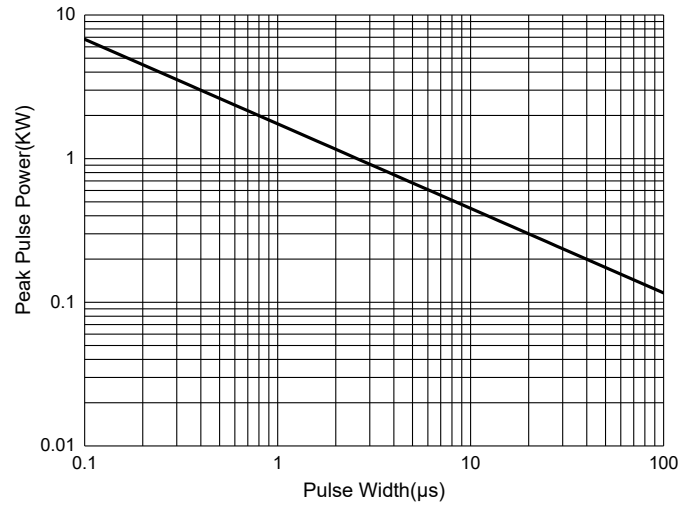


Fig. 3 - Capacitance Characteristics

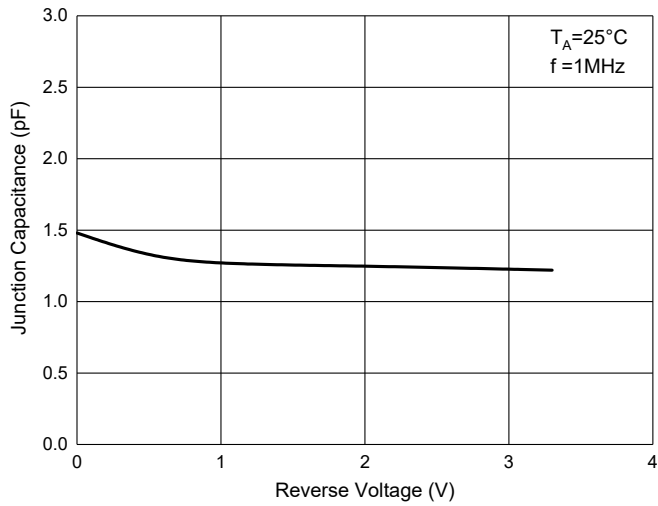


Fig. 4 - Clamping Voltage Characteristics

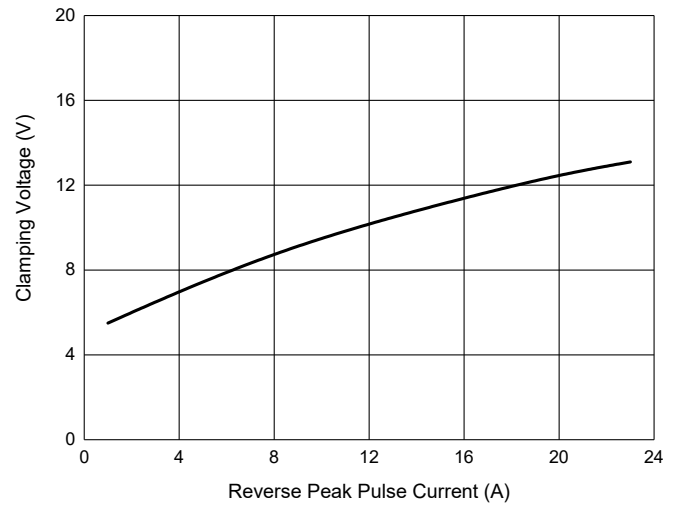
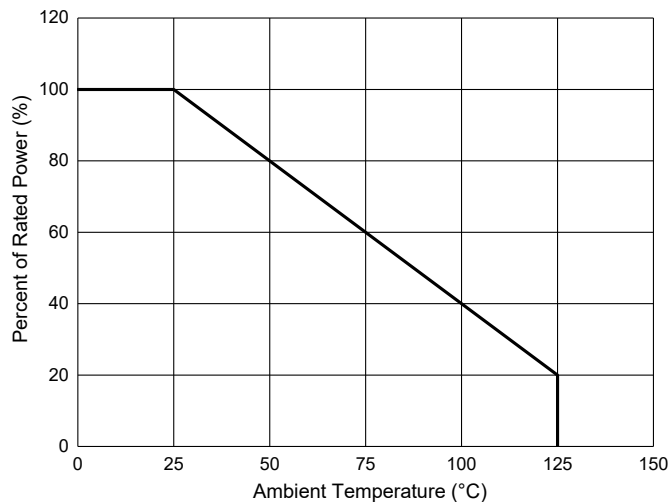


Fig. 5 - Pulse Derating Curve



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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