

## Features

- Up to 4 Data Lines and one Power Line Protects
- Low Clamping Voltage
- Ultra Low Capacitance: 0.6pF Typical (I/O-GND)
- Ultra Low Leakage: nA Level
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

## Maximum Ratings

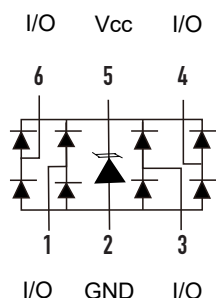
- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C

MCC Part Number	Device Marking
SRV05-4C	0544

IEC61000-4-2(ESD)	Air Contact	±20KV ±15KV
Peak Pulse Current (8/20µs, I/O-GND)	I <sub>PP</sub>	4.5A
Peak Pulse Current (8/20µs, V <sub>CC</sub> -GND)	I <sub>PP</sub>	17A
Peak Pulse Power (8/20µs, I/O-GND)	P <sub>PK</sub>	60W
Peak Pulse Power (8/20µs, V <sub>CC</sub> -GND)	P <sub>PK</sub>	300W

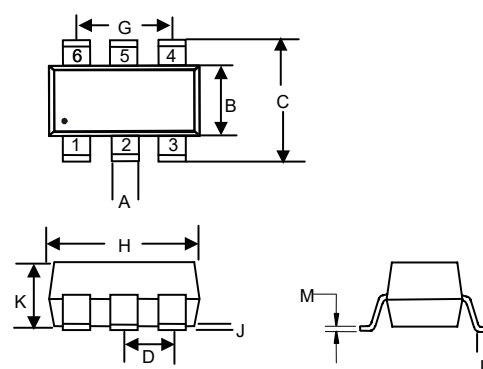
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

## 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	

**Electrical Characteristics @ 25°C (Unless Otherwise Specified)**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	$V_{RWM}$	Pin 5 to GND, I/O to GND			5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	6	7.5	8.5	V
Reverse Leakage Current	$I_R$	$V_{RWM}=5V$			0.5	$\mu A$
Forward Voltage	$V_F$	$I_F=15mA$ , GND to Pin 5/I/O		0.8	1	V
Clamping Voltage	$V_C$	$I_{PP}=4.5A$ , $t_p=8/20\mu s$ , I/O to GND		14	15	V
Clamping Voltage	$V_C$	$I_{PP}=17A$ , $t_p=8/20\mu s$ , Pin 5 to GND		16	18	V
Junction Capacitance	$C_J$	$V_{pin5}=5V$ , $I/O=0V$ , $f=1MHz$ , I/O-GND		0.6	0.7	pF
Junction Capacitance	$C_J$	$V_{pin5}=5V$ , $I/O=0V$ , $f=1MHz$ , I/O-I/O pins		0.3	0.4	pF

## Curve Characteristics

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

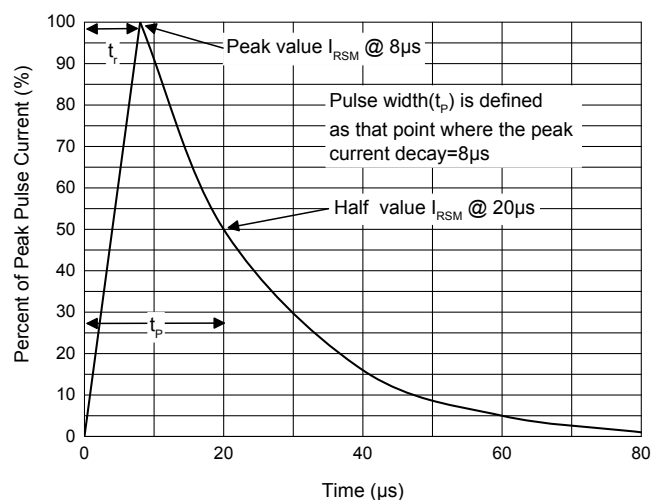


Fig. 2 - Non-Repetitive Peak Pulse Power

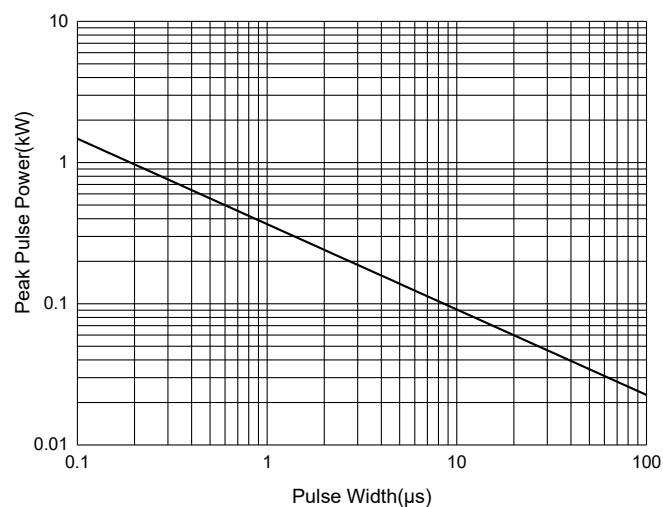


Fig. 3 - Capacitance Characteristics

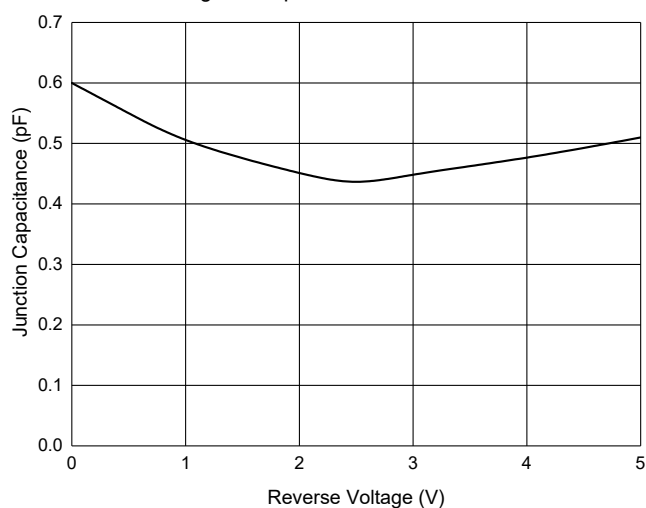


Fig. 4 - Clamping Voltage Characteristics

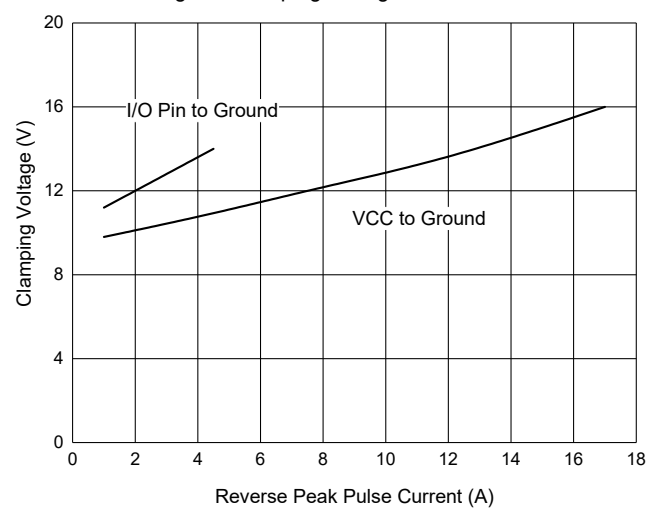


Fig. 5 - Pulse Derating Curve

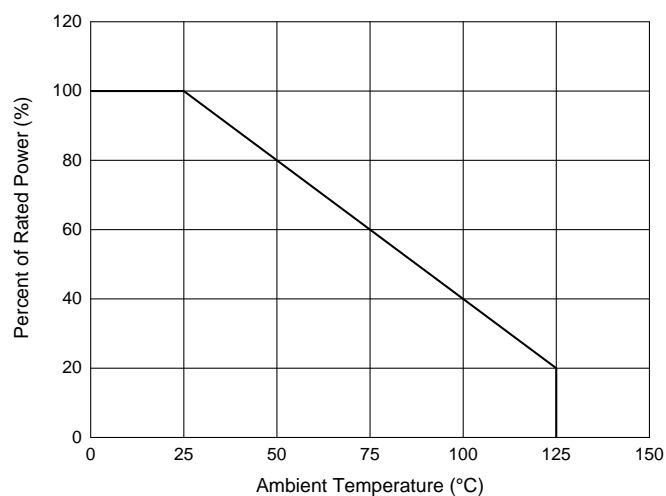
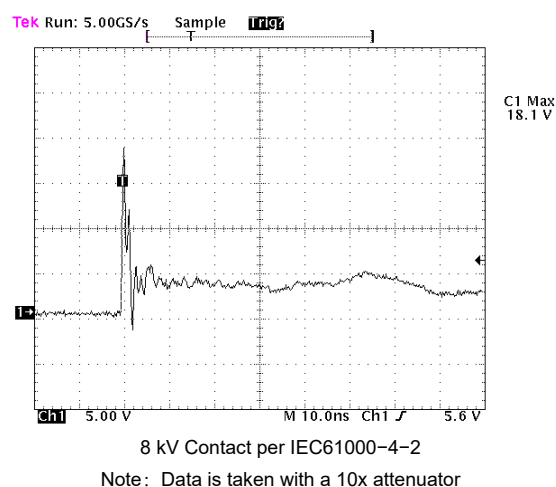


Fig. 6 - ESD Clamping Voltage



## Ordering Information

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

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