Features

- Solid-state silicon technology
- Protects 4 I/O Lines
- Low Capacitance
- Low Clamping Voltage
- Low leakage current
- Moisture Sensitivity Level 1
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

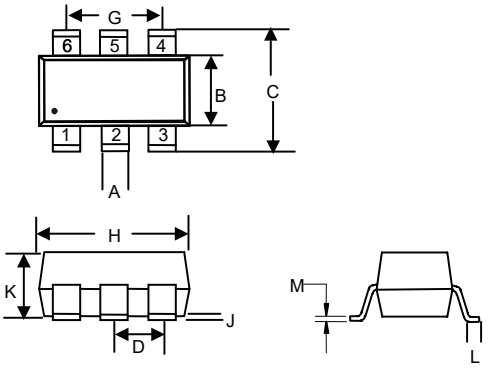
ESD Protection Device

Maximum Ratings

IEC61000-4-2(ESD)	Air	±25KV
	Contact	±25KV
Peak Pulse Power (8/20μs)	P_{PK}	54W
Peak Pulse Current (8/20μs)(Note 2)	I_{PP}	4.5A
Operating Junction Temperature Range	T_J	-40°C to +125°C
Storage Temperature Range	T_{STG}	-55°C to +150°C

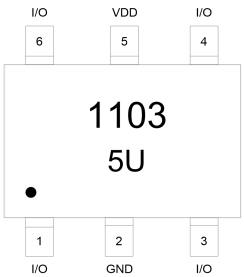
Note:
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2.Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.

SOT23-6L

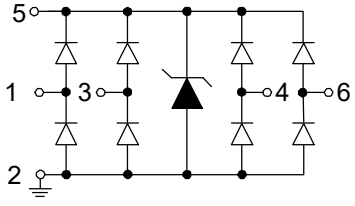


DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.012	0.020	0.30	0.50	
B	0.051	0.070	1.30	1.80	
C	0.087	0.126	2.20	3.20	
D	0.037		0.95		TYP.
G	0.074		1.90		TYP.
H	0.106	0.122	2.70	3.10	
J	0.002	0.006	0.05	0.15	
K	0.030	0.051	0.75	1.30	
L	0.012	0.024	0.30	0.60	
M	0.003	0.008	0.08	0.22	

Marking Information



Internal Structure



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
I/O Pins						
Reverse Working Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	7		9	V
Reverse Leakage Current	I_R	V_{RWM}=5V			100	nA
Forward Voltage	V_F	I_T = 10mA	0.6	0.9	1.2	V
Clamping Voltage(Note 1)	V_C	V_{ESD}=8KV		13		V
Clamping Voltage(Note 2)	V_C	I_{PP}=1A, t_P=8/20μs		7.8	9	V
Clamping Voltage(Note 2)	V_C	I_{PP}=4.5A, t_P=8/20μs		10	12	V
Junction Capacitance	C_J	V_R=0V, f=1MHz, Any I/O pin to GND		0.5	0.7	pF
Junction Capacitance	C_J	V_R=0V, f=1MHz, Between any I/O pins		0.2	0.4	pF
Dynamic Resistance(Note 3)	R_{DYN}	t_P=100ns		0.31		Ω
VDD Pins						
Reverse Working Voltage	V_{RWM}				5.5	V
Reverse Breakdown Voltage	V_{BR}	I_{BR}=1mA	7		8.5	V
Reverse Leakage Current	I_R	V_{RWM}=5.5V			100	nA
Forward Voltage	V_F	I_F = 10mA	0.6	0.9	1.2	V
Clamping Voltage(Note 1)	V_C	V_{ESD}=8KV		10		V
Clamping Voltage(Note 2)	V_C	I_{PP}=1A, t_P=8/20μs		7.8	9	V
Clamping Voltage(Note 2)	V_C	I_{PP}=15A, t_P=8/20μs		11.2	13	V
Dynamic Resistance(Note 3)	R_{DYN}	t_P=100ns		0.20		Ω

Note:

1. Contact Discharge Mode, According to IEC61000-4-2.
2. Non-repetitive Current Pulse, According to IEC61000-4-5.
3. TLP Parameter: Z0=50Ω, tp=100ns, tr=2ns, Averaging Window from 60ns to 80ns. RDYN is Calculated from 4A to 16A.

Curve Characteristics

Fig. 1 - 8 X 20μs Pulse Waveform

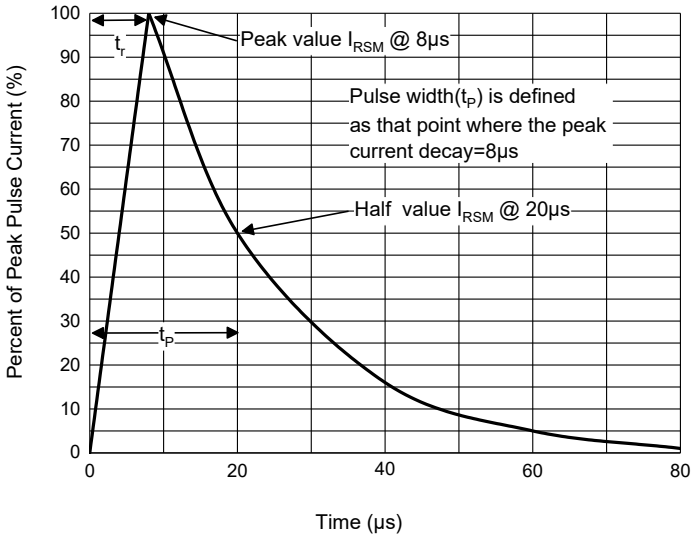


Fig. 2 - Non-Repetitive Peak Pulse Power

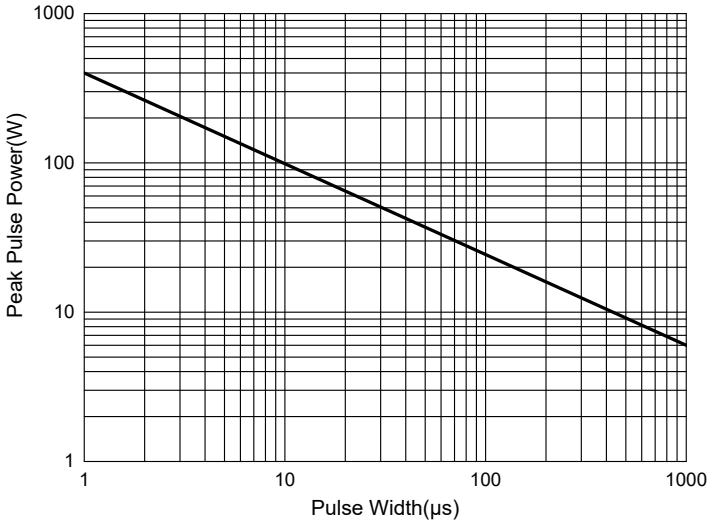


Fig. 3 - Capacitance Characteristics

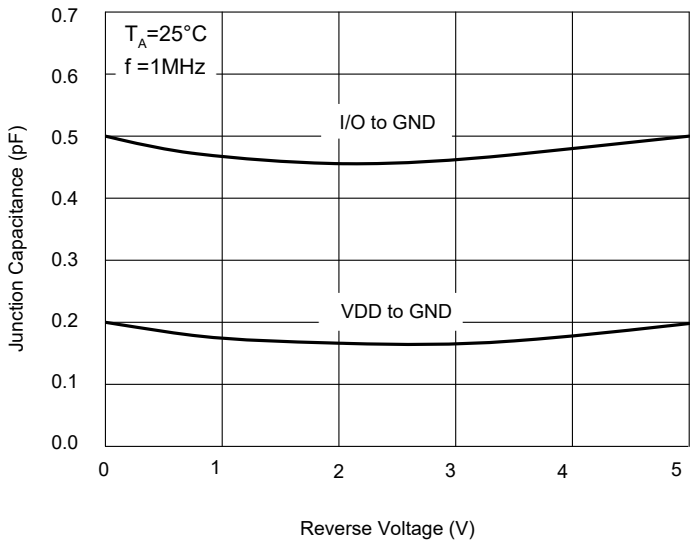


Fig. 4 - Clamping Voltage Characteristics

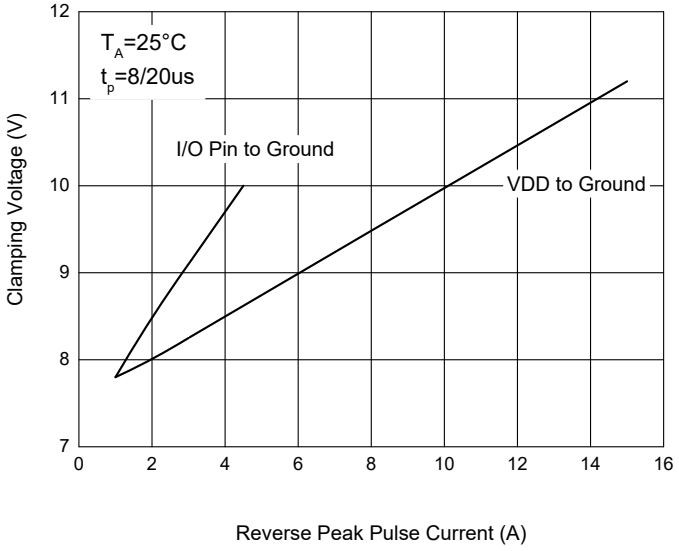


Fig. 5 - TLP Measurement -I/O to GND

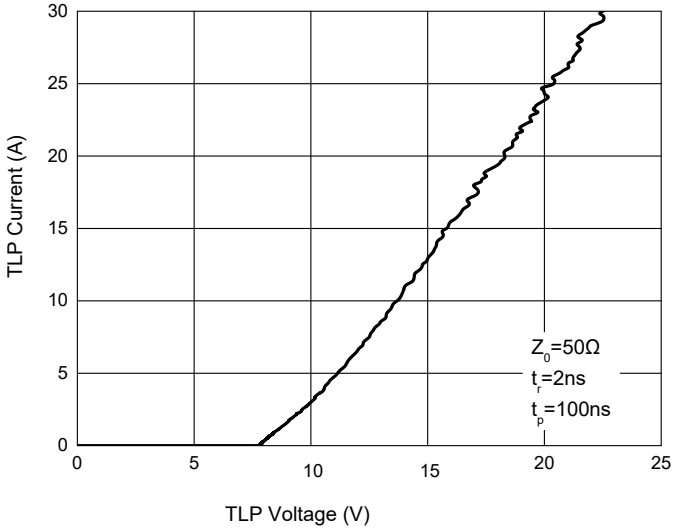
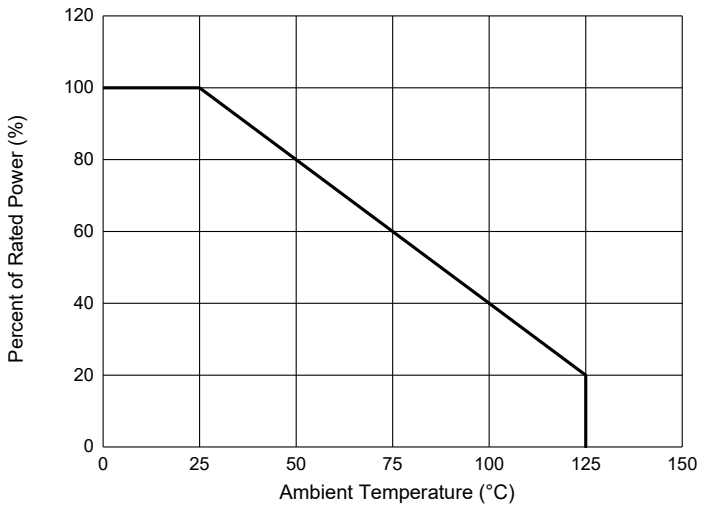


Fig. 6 - Pulse Derating Curve



Ordering Information

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Micro Commercial Components (MCC):

SRV05-4E-TP