

**Features**

- Low Reverse Clamping Voltage
- Low Leakage Current
- Low Capacitance
- Moisture Sensitivity Level 1
- 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**

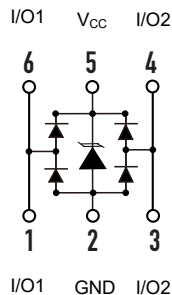
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C

MCC Part Number	Device Marking
ESDU5V0M5	U5N2

IEC61000-4-2(ESD)	Air Contact	±25KV ±25KV
JESD22-A114-B(ESD)	Human Body Machine	16KV 0.4KV
Peak Pulse Current(8/20µs)	I <sub>PP</sub>	3.5A
Peak Pulse Power (8/20us)	P <sub>PK</sub>	90W

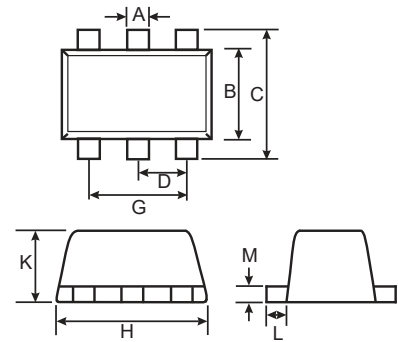
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

**Internal Structure**



**ESD Protection Device**

**SOT-563**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.006	0.011	0.15	0.30	
B	0.043	0.051	1.10	1.30	
C	0.059	0.067	1.50	1.70	
D	0.020		0.50		TYP.
G	0.035	0.043	0.90	1.10	
H	0.059	0.067	1.50	1.70	
K	0.020	0.023	0.52	0.60	
L	0.004	0.011	0.10	0.30	
M	0.004	0.007	0.10	0.18	

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	$V_{RWM}$				5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T = 1\text{mA}$ , I/O to GND	6		10	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T = 1\text{mA}$ , $V_{CC}$ to GND	5		12	V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5\text{V}$ , I/O to GND & $V_{CC}$ to GND			1	$\mu\text{A}$
Forward Voltage	$V_F$	$I_F = 10\text{mA}$ , I/O to GND & $V_{CC}$ to GND	0.4		1.5	V
Clamping Voltage	$V_C$	$I_{PP} = 1\text{A}$ , $t_p = 8/20\mu\text{s}$ , I/O to GND & $V_{CC}$ to GND			13	V
Clamping Voltage	$V_C$	$I_{PP} = 3.5\text{A}$ , $t_p = 8/20\mu\text{s}$ , I/O to GND & $V_{CC}$ to GND			25	V
Junction Capacitance	$C_J$	$V_R = 0\text{V}$ , $f = 1\text{MHz}$ , I/O to GND			0.8	pF
Junction Capacitance	$C_J$	$V_R = 0\text{V}$ , $f = 1\text{MHz}$ , I/O to I/O			0.4	pF

## Curve Characteristics

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

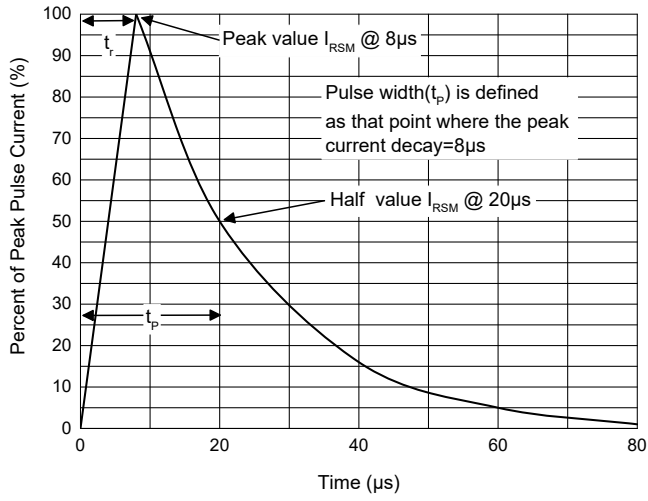


Fig. 2 - Pulse Derating Curve

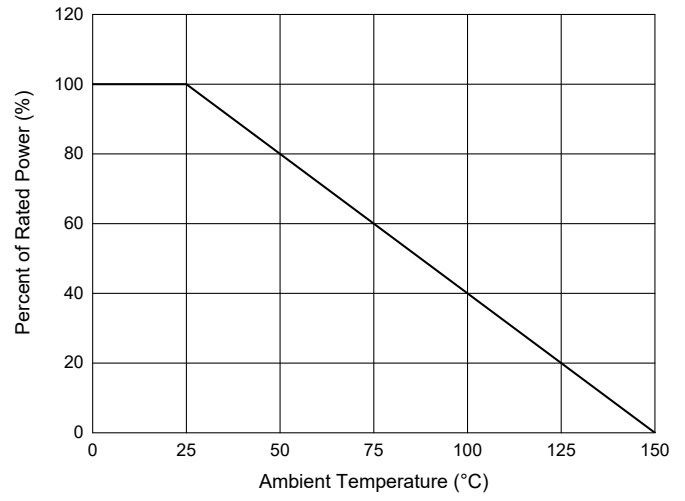


Fig. 3 - Capacitance Characteristics

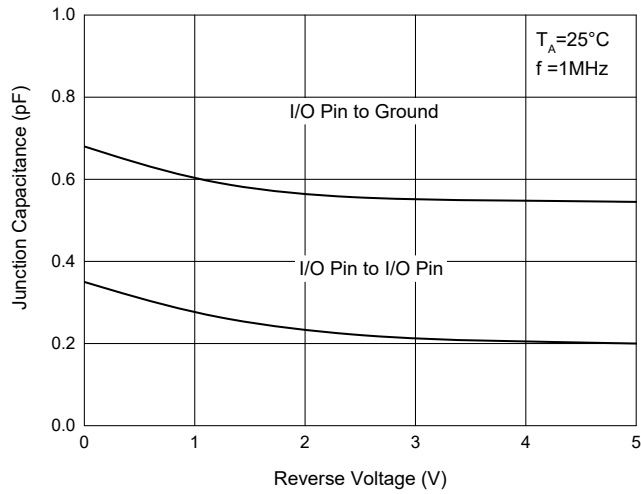
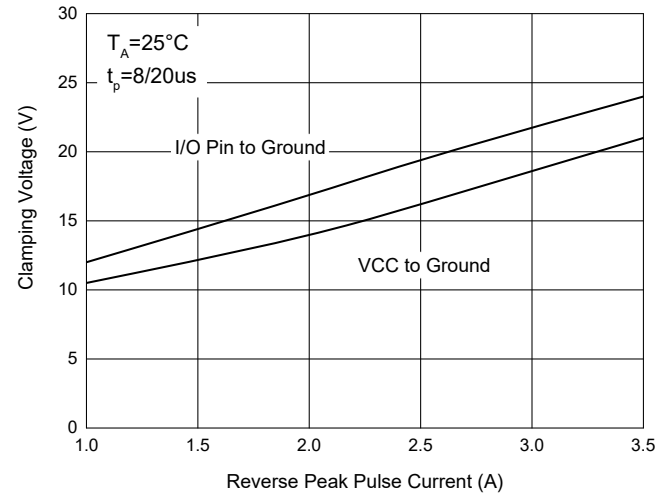


Fig. 4 - Clamping Voltage Characteristics



## Ordering Information

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

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