

**Features**

- Ultra Small Package: 0.8x0.8x0.3mm
- Low Capacitance
- Protects Four Data or Power Lines
- Ultra Low Leakage
- Low Clamping Voltage
- 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**

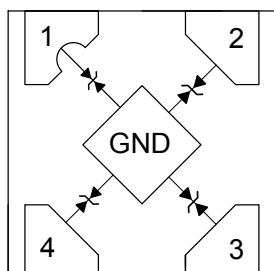
- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C

MCC Part Number	Device Marking
ESD0514PD	PD

IEC61000-4-2(ESD)	Air Contact	±25KV ±22KV
Peak Pulse Current(8/20µs)	I <sub>PP</sub>	3.5A
Peak Pulse Power (8/20µs)	P <sub>PK</sub>	40W

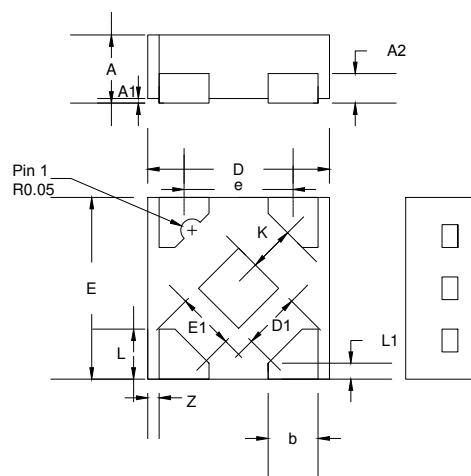
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

**Circuit and Pin Schematic**



**ESD Protection Device**

**DFN0808-4**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.010	0.014	0.25	0.35	
A1	0.000	0.002	0.00	0.04	
A2	0.005		0.13		TYP.
b	0.007	0.011	0.17	0.27	
D	0.030	0.033	0.75	0.85	
D1	0.006	0.014	0.15	0.35	
E	0.030	0.033	0.75	0.85	
E1	0.006	0.014	0.15	0.35	
e	0.019		0.48		TYP.
K	0.008	---	0.20	---	
L	0.007	0.011	0.17	0.27	
L1	0.001	0.005	0.02	0.12	
Z	0.002		0.05		TYP.

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	$V_{RWM}$	Any I/O Pin to GND			5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T = 1\text{mA}$ , Any I/O Pin to GND	6		8	V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5\text{V}$ , Any I/O Pin to GND			0.2	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP}=1\text{A}$ , $t_p=8/20\mu\text{s}$ , Any I/O Pin to GND			8	V
Clamping Voltage	$V_C$	$I_{PP}=3.5\text{A}$ , $t_p=8/20\mu\text{s}$ , Any I/O Pin to GND			12	V
Junction Capacitance	$C_J$	$V_R = 0\text{V}$ , $f = 1\text{MHz}$		5		pF

**Curve Characteristics**

Fig. 1 - 8 X 20µs Pulse Waveform

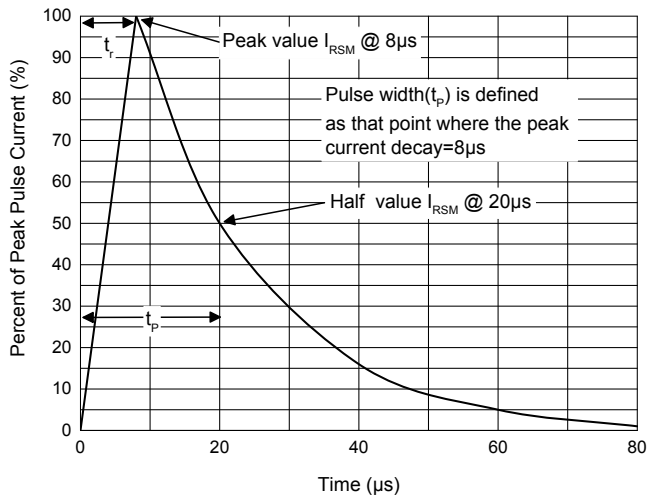


Fig. 2 - Non-Repetitive Peak Pulse Power

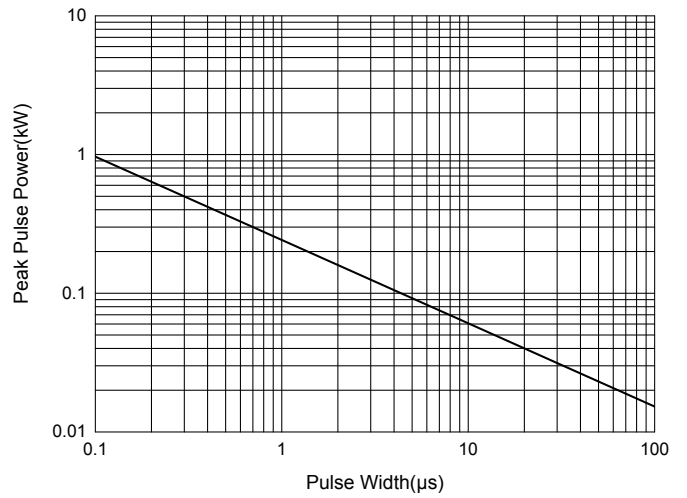


Fig. 3 - Capacitance Characteristics

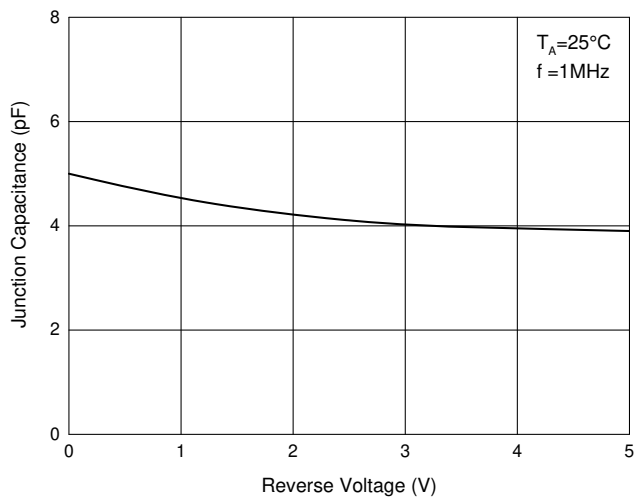


Fig. 4 - Clamping Voltage Characteristics

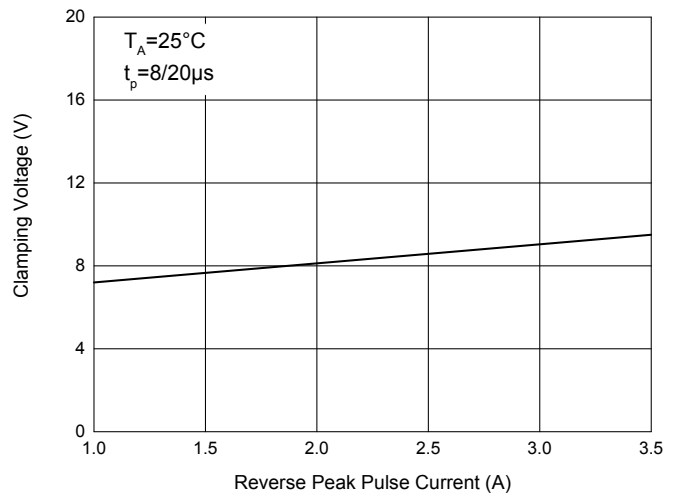
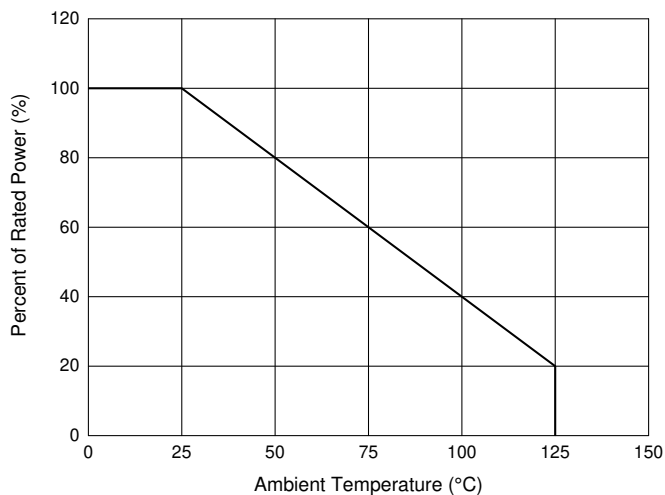


Fig. 5 - Pulse Derating Curve



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 5Kpcs/Reel

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