

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

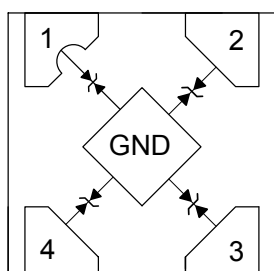
- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C

MCC Part Number	Device Marking
ESD0514PD	PD

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

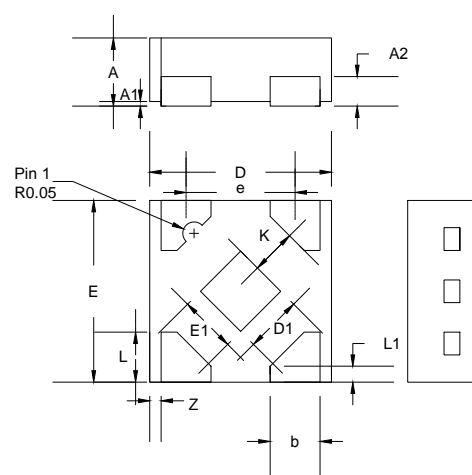
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

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	μA
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 20 μ s Pulse Waveform

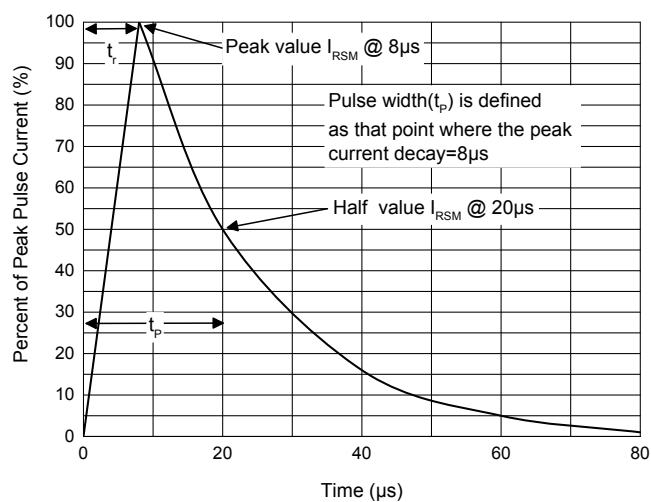


Fig. 2 - Non-Repetitive Peak Pulse Power

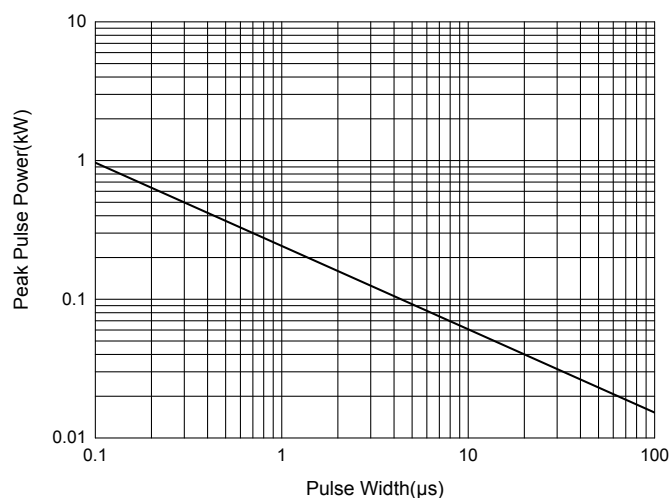


Fig. 3 - Capacitance Characteristics

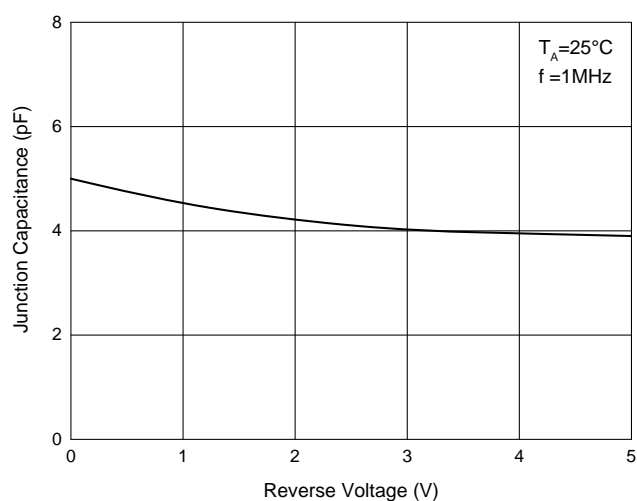


Fig. 4 - Clamping Voltage Characteristics

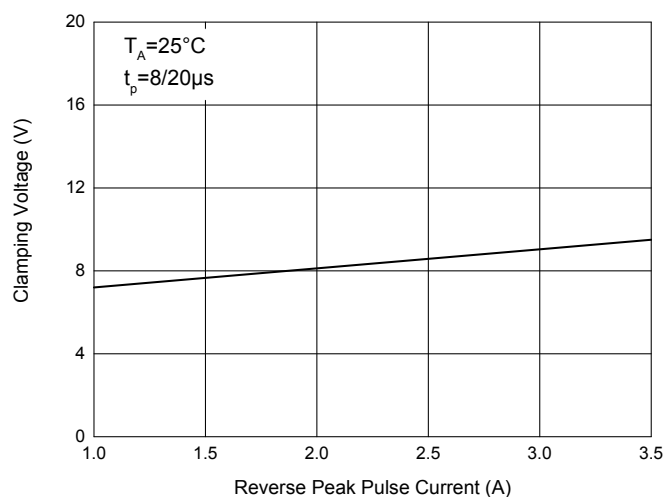
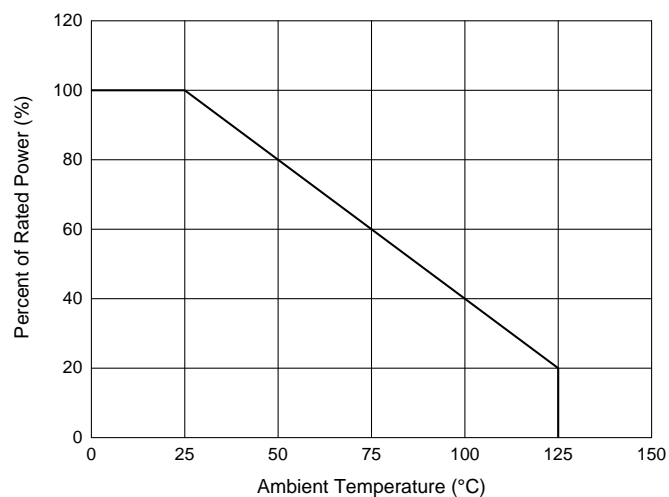


Fig. 5 - Pulse Derating Curve



Ordering Information

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

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