



ESDLC5V0PB8

Features

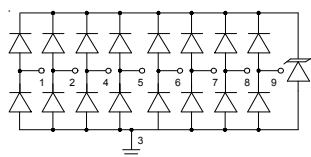
- Ultra Low Capacitance 0.29pF typical
- Low operating Voltage: 5.0 V
- Low clamping voltage
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5(Lightning) 5A (8/20us)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"
- Marking:0508P

Maximum Ratings

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

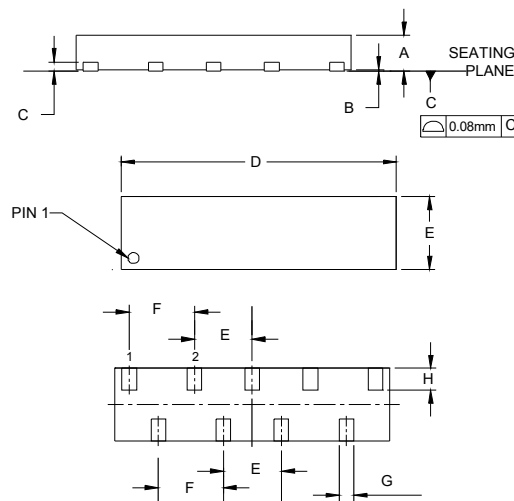
Parameter	Symbol	Limits	unit
IEC61000-4-2(ESD) Contact Air	V_{ESD}	± 8 ± 15	KV
Peak Pulse Power (8/20us)	P_{pk}	100	W
Peak Pulse Current (8/20us)	I_{pp}	5	A

Internal Structure



ESD Protection Device

DFN3810-9



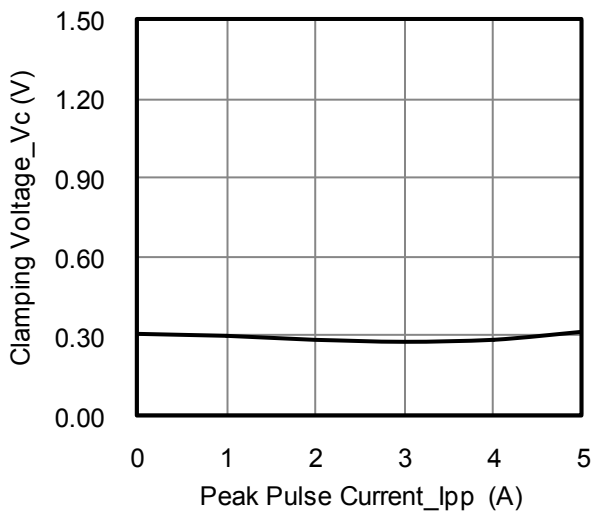
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.018	0.022	0.45	0.55	
B	0.000	0.002	0.00	0.05	
C	0.005		0.130		
D	0.146	0.154	3.70	3.90	
E	0.031 BSC		0.800 BSC		
F	0.035 BSC		0.900 BSC		
G	0.006	0.010	0.15	0.25	
H	0.010	0.014	0.25	0.35	

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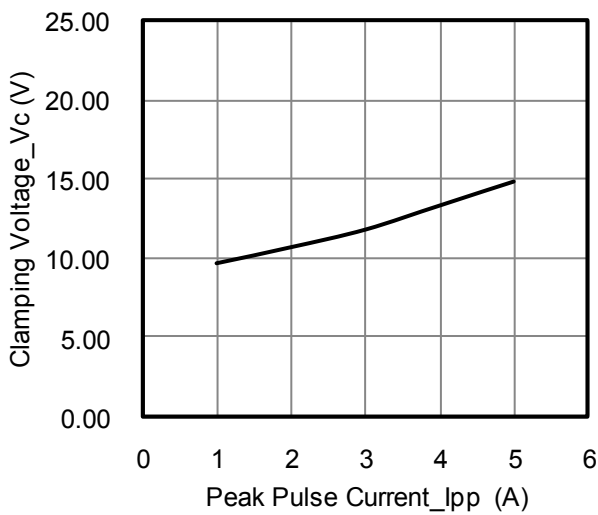
Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V _{RWM}			5	V	Any I/O pin to ground
Breakdown Voltage	V _{BR}	6			V	I _T = 1mA, any I/O pin to ground
Reverse Leakage Current	I _R			0.5	μA	V _{RWM} = 5V, any I/O pin to ground
Clamping Voltage	V _C			15	V	I _{PP} = 1A (8 x 20μs pulse), any I/O pin to ground
Clamping Voltage	V _C			20	V	I _{PP} = 5A (8 x 20μs pulse), any I/O pin to ground
Junction Capacitance	C _J		0.29	0.35	pF	V _R = 0V, f = 1MHz, any I/O pin to ground

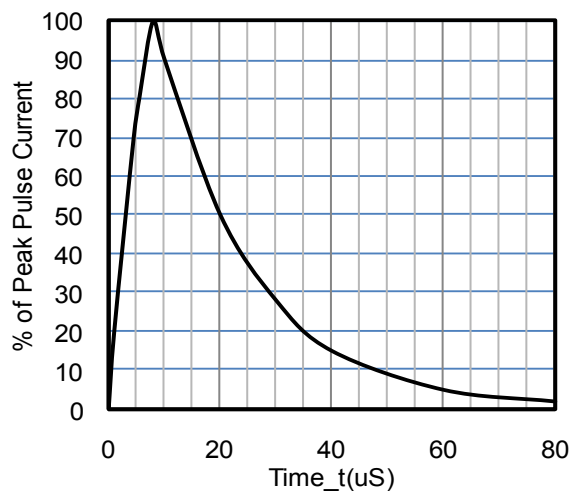
Typical Performance Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise Specified)



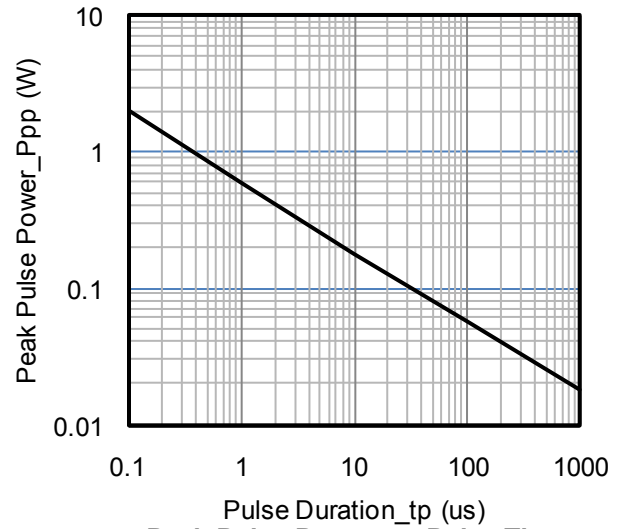
Junction Capacitance vs. Reverse Voltage



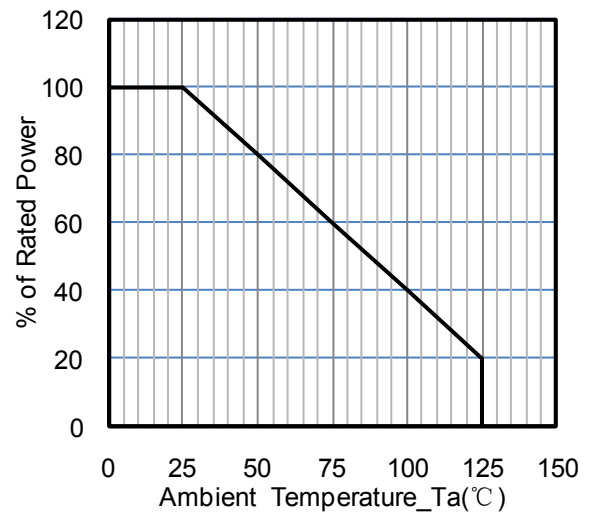
Clamping Voltage vs. Peak Pulse Current



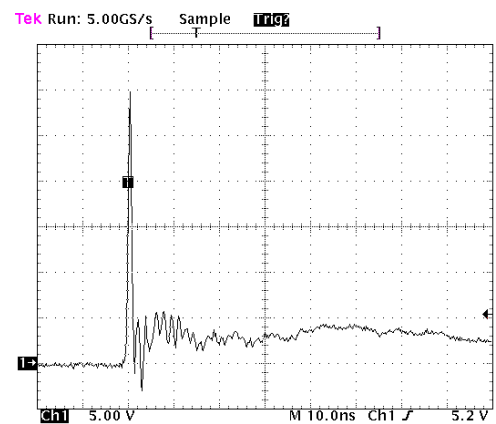
8 X 20uS Pulse Waveform



Peak Pulse Power vs. Pulse Time



Power Derating Curve



ESD Clamping Voltage

8 kV Contact per IEC61000-4-2

Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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