ESD Protection Device

Features

- Low Operating Voltage
- Low Clamping Voltage
- Ultra Low Leakage: nA level
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

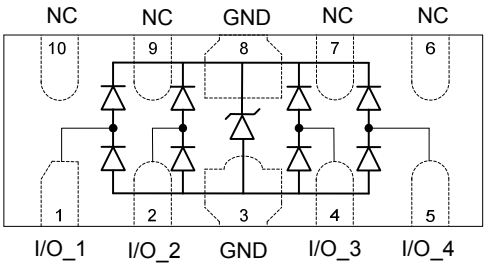
Maximum Ratings

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

MCC Part Number	Device Marking
ESDLC3304P5	3324

IEC61000-4-2(ESD)	Air Contact	±20KV ±20KV
IEC61000−4−4 (EFT) @5/50ns		40A
Peak Pulse Current(8/20μs)	I_{PP}	5A
Peak Pulse Power (8/20μs)	P_{PK}	50W

Circuit and Pin Schematic



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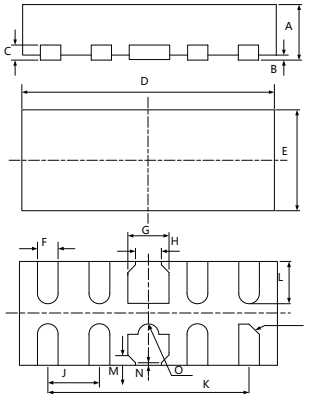
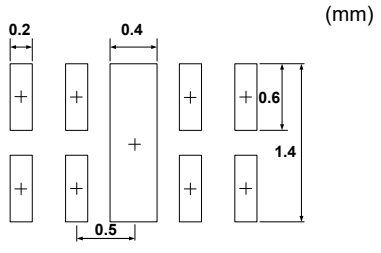


DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.018	0.022	0.45	0.55	
B	0.000	0.002	0.00	0.05	
C	0.004	0.008	0.10	0.20	
D	0.098	0.102	2.45	2.55	
E	0.038	0.042	0.95	1.05	
F	0.006	0.010	0.15	0.25	
G	0.014	0.018	0.35	0.45	
H	0.008	0.012	0.20	0.30	
J	0.020		0.500		TYP.
K	0.080		2.000		TYP.
L	0.014	0.018	0.35	0.45	
M	0.003		0.075		TYP.
N	0.002		0.050		TYP.
O	0.002	0.006	0.05	0.15	

SUGGESTED SOLDER PAD LAYOUT



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}	Any I/O Pin to Ground			3.3	V
Punch-Through Voltage	V_{PT}	I_T=2μA, Any I/O Pin to Ground	3.5			V
Snap-Back Voltage	V_{SB}	I_T=50mA, Any I/O Pin to Ground	2.8			V
Reverse Leakage Current	I_R	V_{RWM} =3.3V, Any I/O Pin to Ground			0.5	μA
Clamping Voltage	V_C	I_{PP}=1A, t_P=8/20μs, Any I/O Pin to Ground			6.5	V
Clamping Voltage	V_C	I_{PP}=5A, t_P=8/20μs, Any I/O Pin to Ground			10	V
Junction Capacitance	C_J	V_R = 0V, f = 1MHz, Between I/O Pins		0.6	0.8	pF

Curve Characteristics

Fig. 1 - 8 X 20μs Pulse Waveform

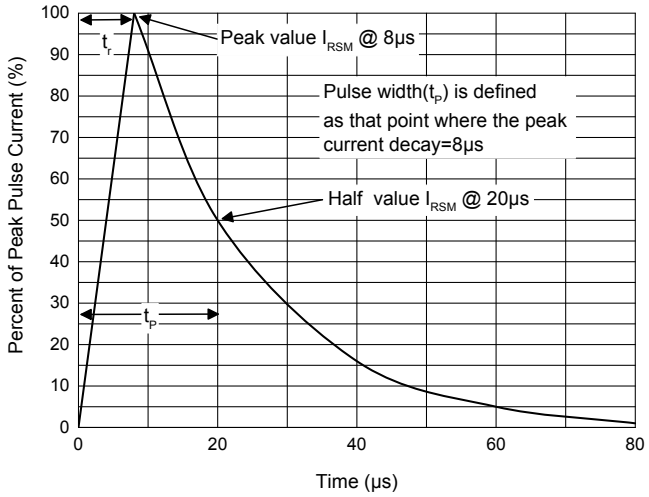


Fig. 2 - Pulse Derating Curve

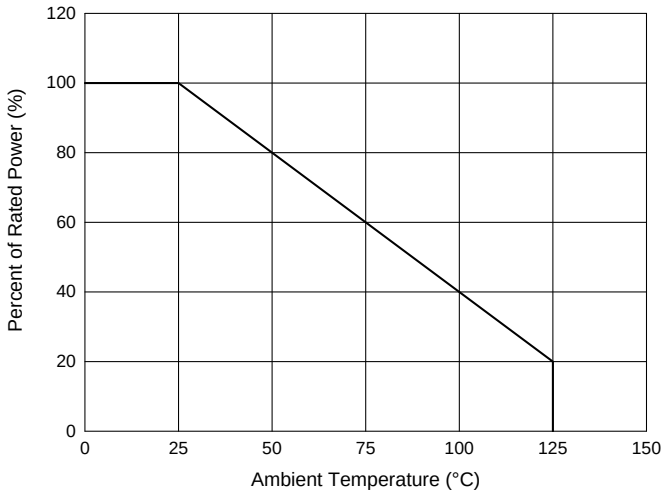


Fig. 3 - Capacitance Characteristics

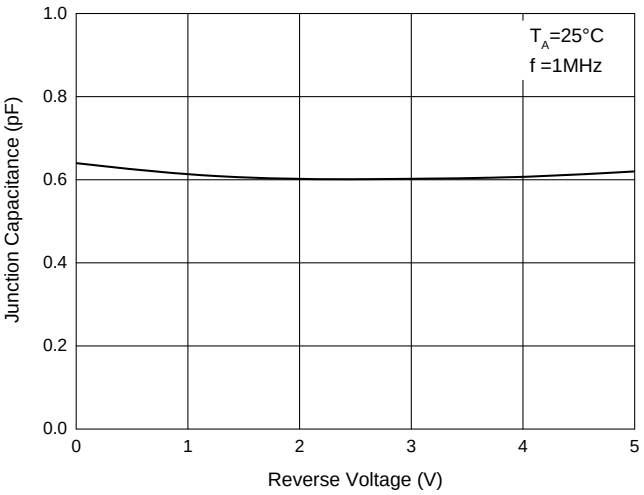
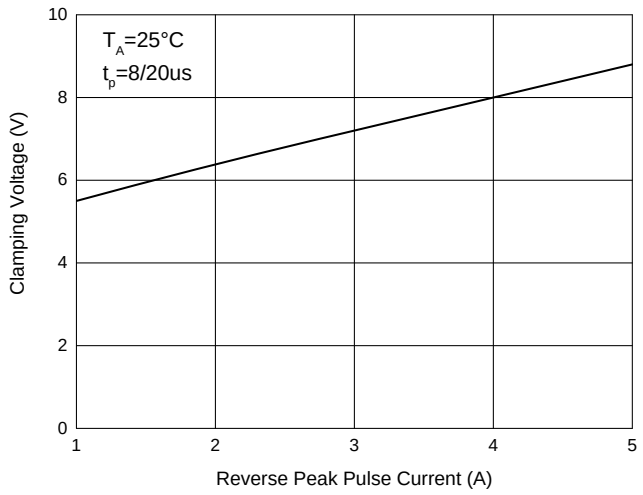


Fig. 4 - Clamping Voltage Characteristics



Ordering Information

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

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

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