

**Features**

- 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**

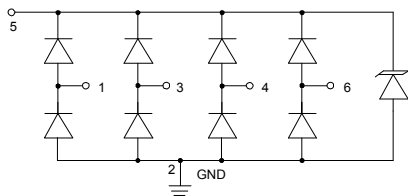
- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C

MCC Part Number	Device Marking
ESDLC0554P3	55P

IEC61000-4-2(ESD)	Air Contact	±30KV ±30KV
Peak Pulse Current(8/20µs)	I <sub>PP</sub>	11A
Peak Pulse Power (8/20µs)	P <sub>PK</sub>	240W

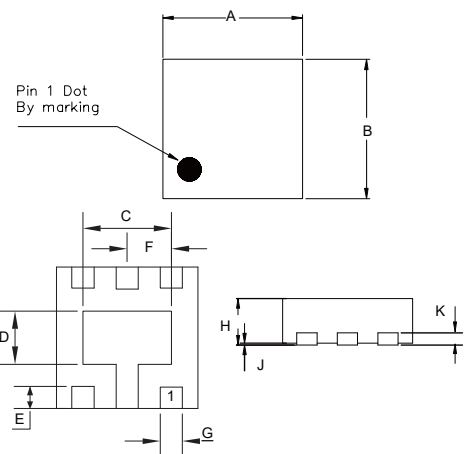
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

**Circuit Diagram**



**ESD Protection Device**

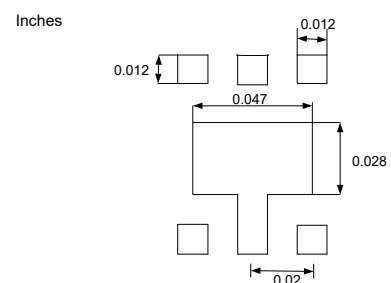
**DFN1616-6L**



**DIMENSIONS**

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.061	0.065	1.55	1.65	
B	0.061	0.065	1.55	1.65	
C	0.034	0.043	0.85	1.10	
D	0.018	0.028	0.45	0.70	
E	0.008	0.012	0.20	0.30	
F	0.020		0.50		TYP.
G	0.008	0.012	0.20	0.30	
H	0.020	0.024	0.50	0.60	
J	0.000	0.002	0.00	0.05	
K	0.006		0.15		TYP.

**SUGGESTED SOLDER PAD LAYOUT**



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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	$V_{RWM}$	Pin 5 to Ground			5.5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T = 1\text{mA}$ , Pin 5 to Ground	6.0		7.8	V
		$I_T = 1\text{mA}$ , Pin 1,3,4 or 6 to Ground	6.5		8.0	
Reverse Leakage Current	$I_R$	$V_{RWM} = 5.5\text{V}$ , Pin 5 to Ground			0.1	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP} = 1\text{A}$ , $t_p = 8/20\mu\text{s}$ , Any I/O Pin to Ground			10	V
Clamping Voltage	$V_C$	$I_{PP} = 11\text{A}$ , $t_p = 8/20\mu\text{s}$ , Any I/O Pin to Ground			22	V
Junction Capacitance	$C_J$	$V_R = 0\text{V}$ , $f = 1\text{MHz}$ , Between I/O Pins			2	pF
Junction Capacitance	$C_J$	$V_R = 0\text{V}$ , $f = 1\text{MHz}$ , Any I/O Pin to Ground			1	pF

## Curve Characteristics

Fig. 1 - 8 X 20µs Pulse Waveform

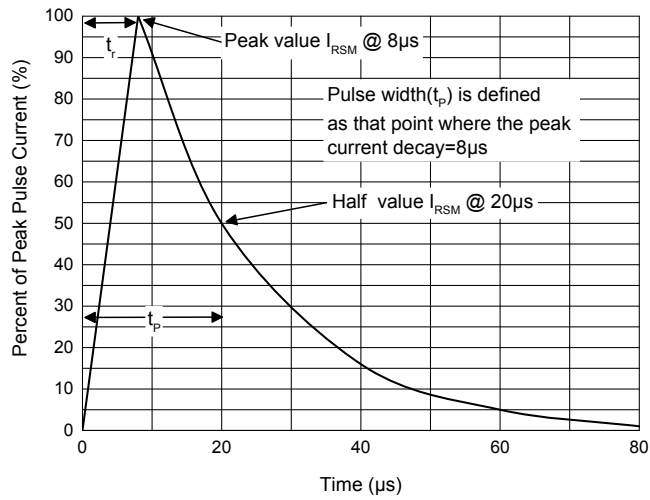


Fig. 2 - Pulse Derating Curve

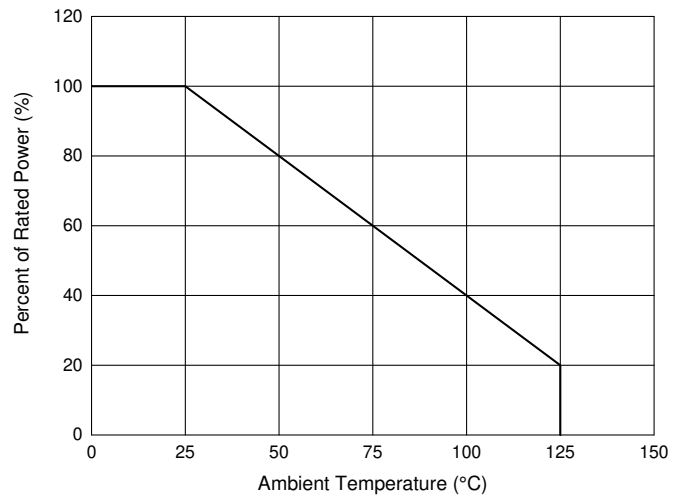


Fig. 3 - Capacitance Characteristics

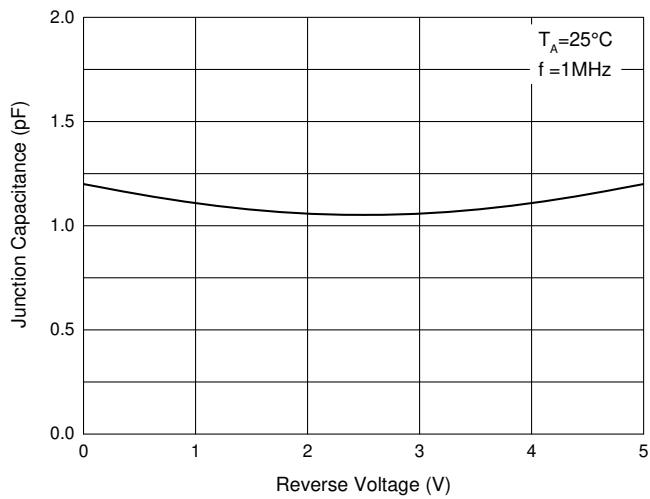
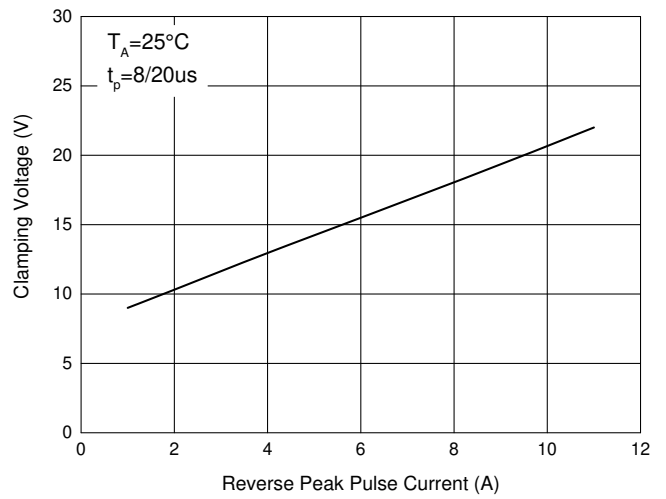
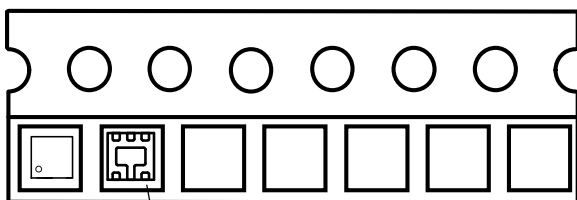


Fig. 4 - Clamping Voltage Characteristics



## Pin Location



Pad layout - view from top / seen at bottom side

## Ordering Information

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

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