

## Features

- Ultra Low Operating Voltage
- Low Capacitance
- Low Clamping Voltage
- 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)

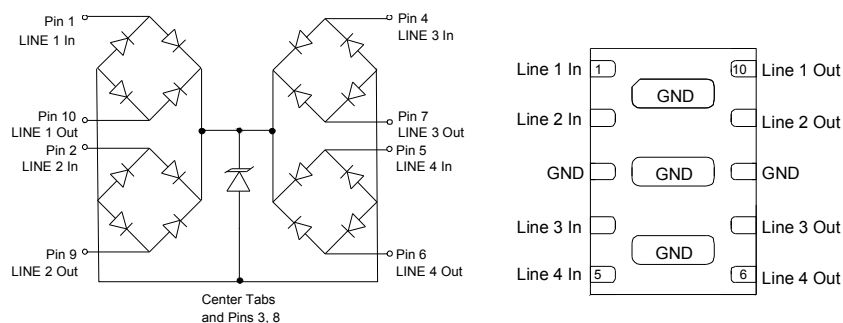
## Maximum Ratings

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

MCC Part Number	Device Marking
ESDLC2504P9	2544 / 2574N

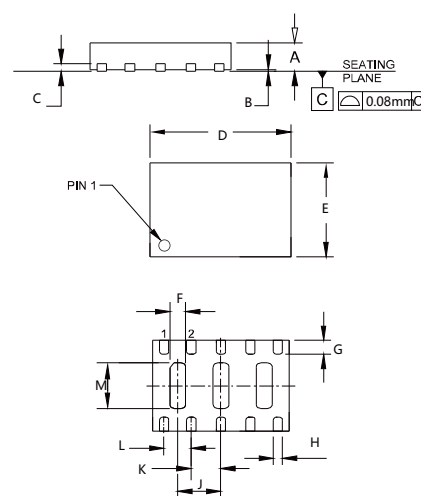
IEC61000-4-2(ESD)	Air Contact	±30KV ±30KV
IEC61000-4-4 (EFT) @5/50ns		40A
Peak Pulse Current(8/20μs)	I <sub>PP</sub>	40A
Peak Pulse Power (8/20μs)	P <sub>PK</sub>	1000W

## Circuit and Pin Schematic



## ESD Protection Device

### DFN3020-10



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.020	0.026	0.50	0.65	
B	0.000	0.002	0.00	0.05	
C	0.006		0.15		TYP.
D	0.114	0.122	2.90	3.10	
E	0.075	0.083	1.90	2.10	
F	0.010	0.018	0.25	0.45	
G	0.010	0.014	0.25	0.35	
H	0.006	0.010	0.15	0.25	
J	0.037		0.95		TYP.
K	0.020		0.65		TYP.
L	0.024		0.60		TYP.
M	0.037	0.041	0.95	1.05	

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	$V_{RWM}$				2.5	V
Punch-Through Voltage	$V_{PT}$	$I_{PT}=2\mu A$	2.7			V
Snap-Back Voltage	$V_{SB}$	$I_{SB}=50mA$	2			V
Reverse Leakage Current	$I_R$	$V_{RWM}=2.5V$			0.5	$\mu A$
Clamping Voltage	$V_C$	$I_{PP}=1A$ , $t_P=8/20\mu s$ , Any I/O Pin to Ground			4.5	V
Clamping Voltage	$V_C$	$I_{PP}=10A$ , $t_P=8/20\mu s$ , Any I/O Pin to Ground			7.5	V
Clamping Voltage	$V_C$	$I_{PP}=25A$ , $t_P=8/20\mu s$ , Any I/O Pin to Ground			12	V
Clamping Voltage	$V_C$	$I_{PP}=40A$ , $t_P=8/20\mu s$ , Any I/O Pin to Ground			25	V
Junction Capacitance	$C_J$	$V_R = 0V$ , $f = 1MHz$ , Between I/O Pins		1.7	2.5	pF
Junction Capacitance	$C_J$	$V_R = 0V$ , $f = 1MHz$ , Any I/O Pin to Ground		3.8	5	pF

## Curve Characteristics

Fig. 1 - 8 X 20 $\mu$ s Pulse Waveform

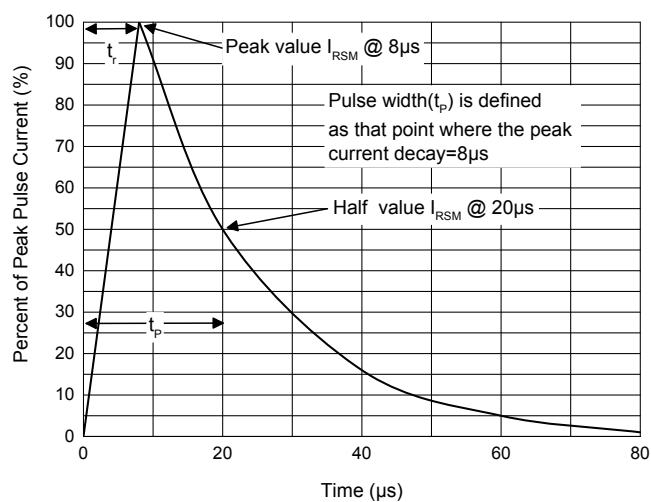


Fig. 2 - Pulse Derating Curve

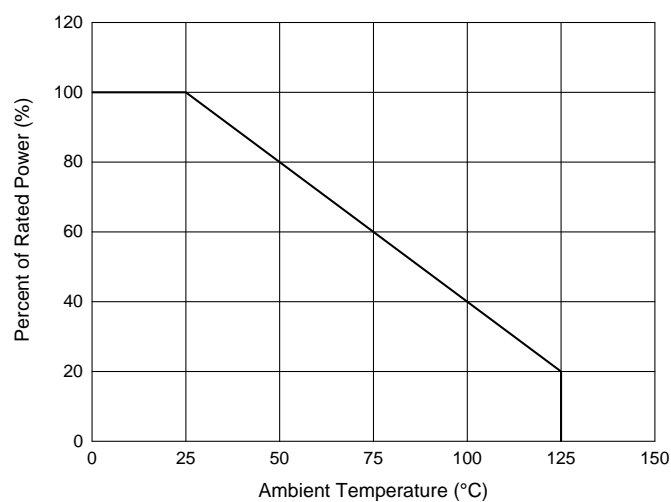


Fig. 3 - Capacitance Characteristics

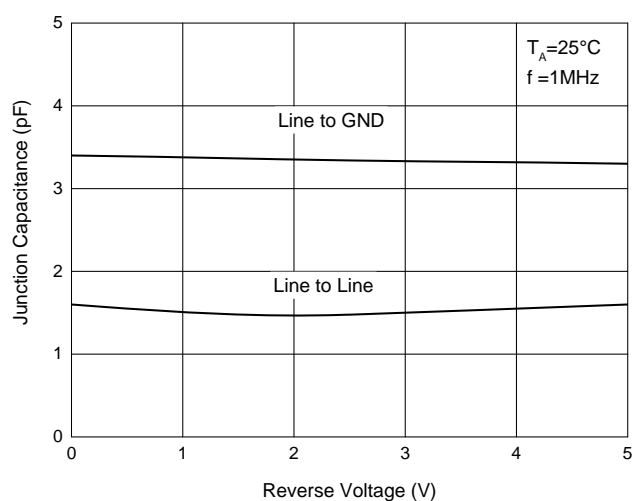
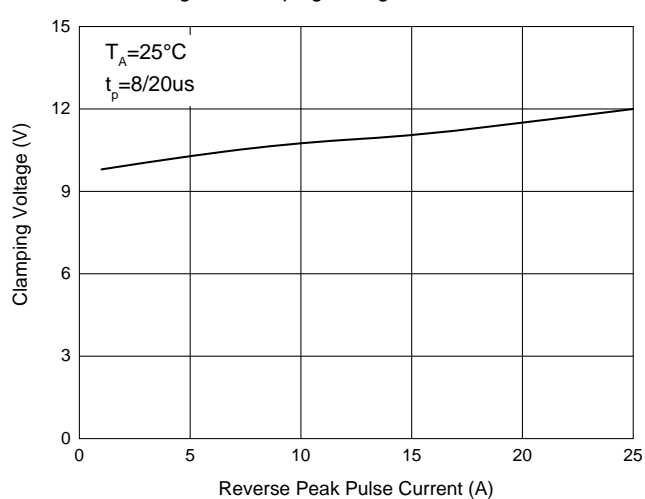


Fig. 4 - Clamping Voltage Characteristics



## 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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