

Features

- Protects Four(4) I/O Lines
- Ultra Low Capacitance
- Ultra Low Leakage
- Low Clamping Voltage
- Fast Response, Response Time Less than 1ns
- 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

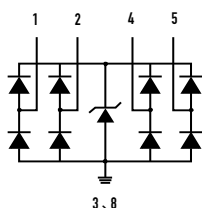
MCC Part Number	Device Marking
ESDSL0534DFN10	0534

IEC61000-4-2(ESD)	Air Contact	±25KV ±20KV
Peak Pulse Current(8/20µs)	I _{PP}	3A
Peak Pulse Power (8/20µs)	P _{PK}	50W

Note:

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

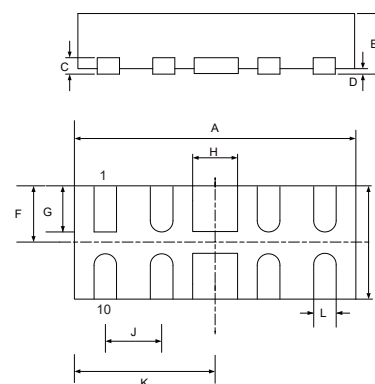
Internal Structure



Pin	Identification
1,2,4,5	Input lines
6,7,9,10	Output Lines (No Internal Connection)
3,8	Ground

ESD Protection Device

DFN-10



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.094	0.102	2.40	2.60	
B	0.035	0.043	0.90	1.10	
C	0.005		0.13		TYP.
D	0.000	0.002	0.00	0.05	
E	0.020	0.026	0.50	0.65	
F	0.017	0.022	0.45	0.55	
G	0.012	0.017	0.30	0.425	
H	0.014	0.018	0.35	0.45	
J	.020		0.5		TYP.
K	0.047	0.056	1.20	1.30	
L	0.006	0.010	0.15	0.25	

Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				5	V
Reverse Leakage Current	I_R	$V_{RWM}=5V$			200	nA
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	6	7.5	8.5	V
Clamping Voltage ^(Note 2)	V_C	$I_{PP}=16A, t_p=100ns$		16.5		V
Dynamic Resistance ^(Note 2)	R_{DYN}			0.68		Ω
Clamping Voltage ^(Note 3)	V_C	$I_{PP}=1A, t_p=8/20\mu s$			9	V
		$I_{PP}=3A, t_p=8/20\mu s$			15	V
Junction Capacitance	$C_{I/O-GND}$	$V_R=0V, f=1MHz$		0.4	0.5	pF
	$C_{I/O-I/O}$			0.2	0.25	pF

Note:

2. TLP Parameter: $Z_0=50\Omega, t_p=100ns, t_r=2ns$, Averaging Window from 60ns to 80ns. R_{DYN} is Calculated from 4A to 16A.
3. Non-repetitive Current Pulse, According to IEC61000-4-5.

Curve Characteristics

Fig. 1 - 8 X 20 μ s Pulse Waveform

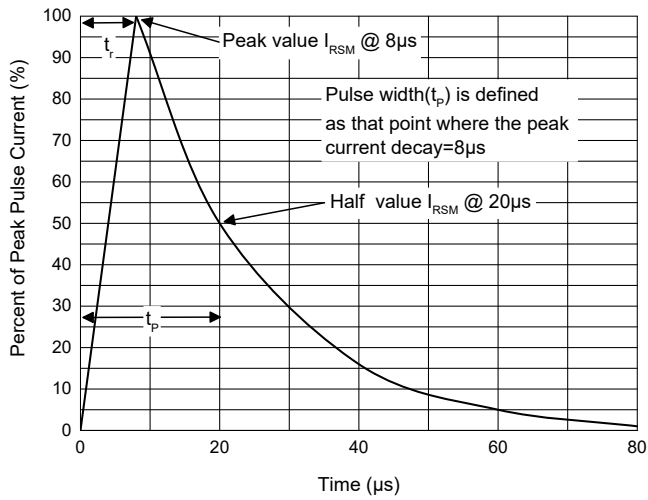


Fig. 2 - Capacitance Characteristics

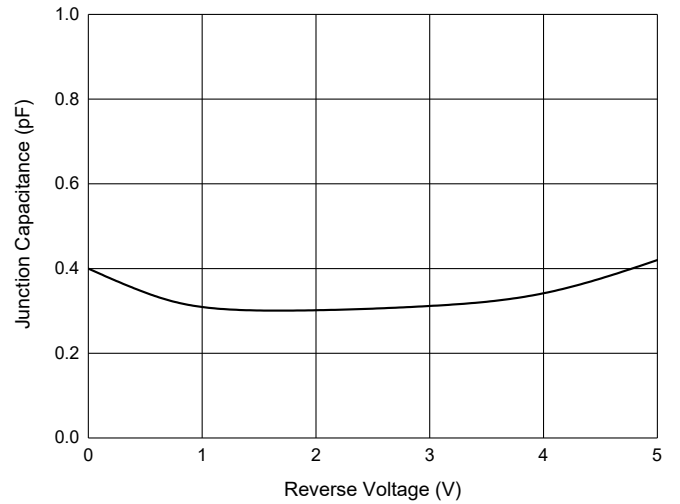


Fig. 3 - Clamping Voltage Characteristics

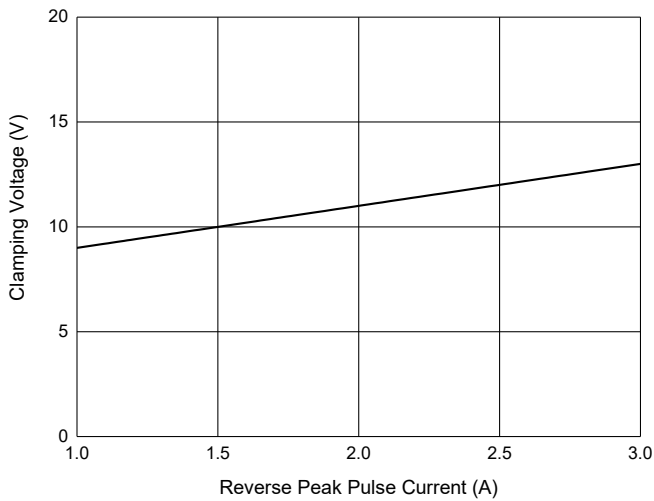


Fig. 4 - Pulse Derating Curve

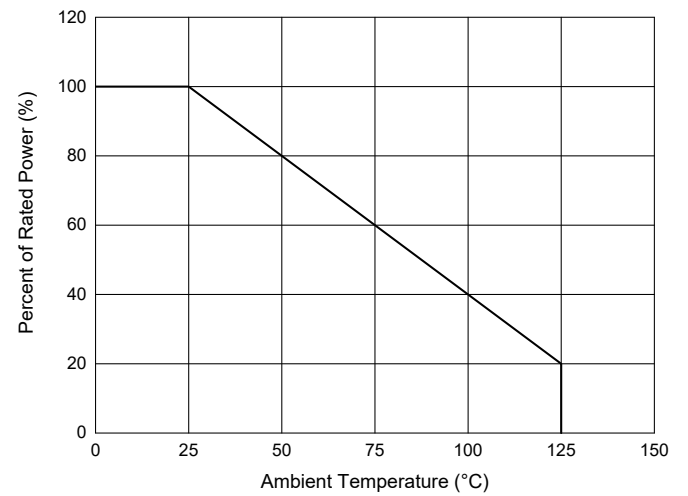


Fig. 5 - TLP Measurement

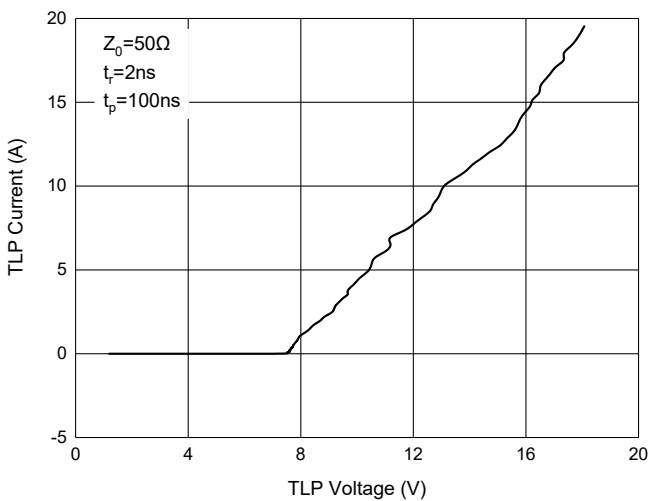
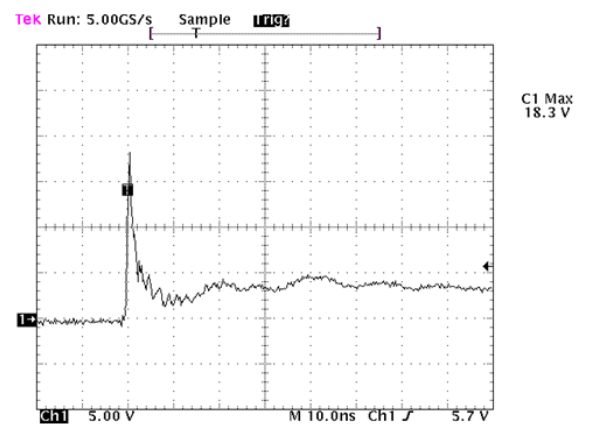


Fig. 6 - ESD Clamping Voltage



Note: Data is taken with a 10x attenuator
8 kV Contact per IEC61000-4-2

Ordering Information

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

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