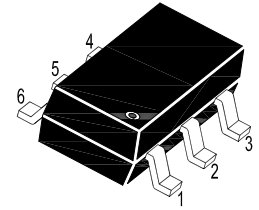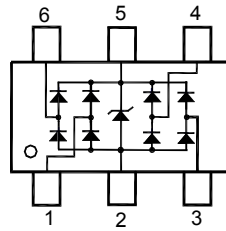# ESDLC3050D

4-Channel Low Capacitance TVS Array

1. I/O1   2. GND   3. I/O2
4. I/O3   5. VCC   6. I/O4
SOT-26 Plastic Package

Absolute Maximum Ratings (at T_a = 25℃ unless otherwise specified)

Parameter		Symbol	Value	Unit
Peak Power Dissipation (tp = 8/20 μs)		P_{PK}	150	W
Peak Pulse Current (tp = 8/20 μs)		I_{PP}	10	A
ESD (IEC61000-4-2)	Air Contact	V_{ESD}	± 30 ± 20	KV
Operating Temperature Range		T_{opr}	- 40 to + 85	℃
Junction Temperature		T_j	125	℃
Storage Temperature Range		T_{stg}	- 65 to + 150	℃

Characteristics at T_a = 25℃

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-off Voltage	V_{RWM}	-	-	6	V
Reverse Breakdown Voltage at I_R = 1 mA	$V_{(BR)R}$	6.5	8	-	V
Leakaeg Current at V_R = 5 V	I_R	-	0.1	0.5	μA
Clamping Voltage at I_{PP} = 1 A, tp = 8/20 μs , I/O Pins to GND at I_{PP} = 5 A, tp = 8/20 μs , I/O Pins to GND at I_{PP} = 8 A, tp = 8/20 μs , I/O Pins to GND	V_C	- - -	8.8 11.5 13.2	10 13 15	V
Clamping Voltage at I_{TLP} = 4 A, tp = 0.2/100 ns, I/O Pins to GND at I_{TLP} =16 A, tp = 0.2/100 ns, I/O Pins to GND	V_{CL}	- -	10.1 15.9	- -	V
Junction Capacitance at V_R = 0 V, f = 1 MHz , Between I/O Pins to GND at V_R = 1.65 V, f = 1 MHz , Between I/O Pins to GND at V_R = 0 V, f = 1 MHz , Between I/O Pins	C_j	- - -	2.4 2 1.2	3 - -	pF
Dynamic Resistance [1]	R_{dyn}	-	0.5	-	Ω

[1] Dynamic Resistance calculated from I_{TLP} = 4A to I_{TLP} = 16 A .
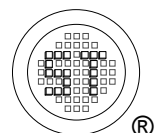
ESDLC3050D

Electrical Characteristic Curves

Fig 1. Pulse Waveform

Waveform
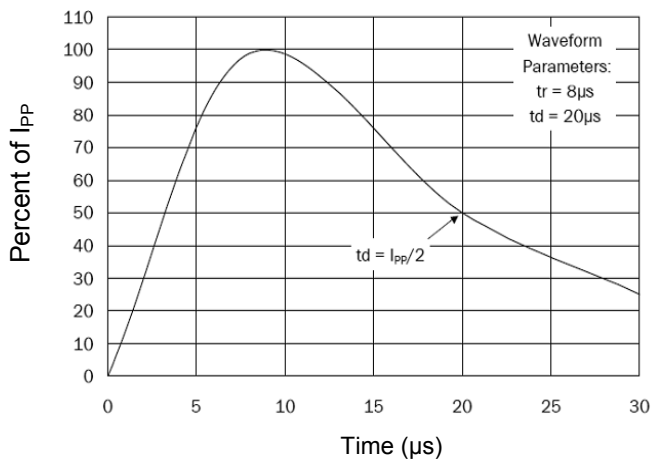Parameters:
tr = 8µs
td = 20µs

td = I$_{PP}$/2

Percent of I$_{PP}$ / Time (µs)

Fig 2. Power Derating Curve

% of Rated Power or I$_{PP}$ / Ambient Temperature (℃)
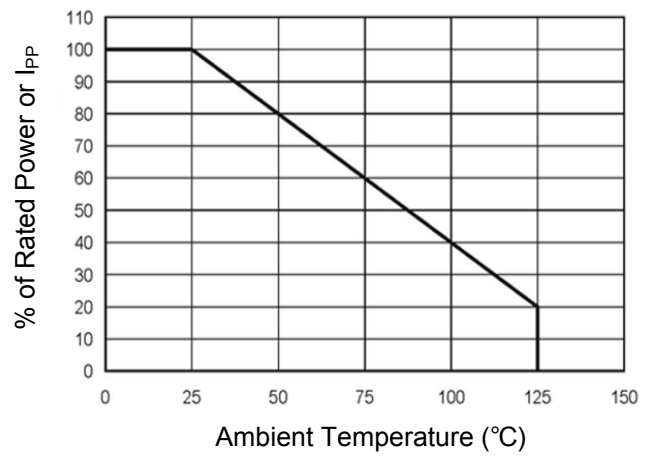
Fig 3. Clamping Voltage Curve
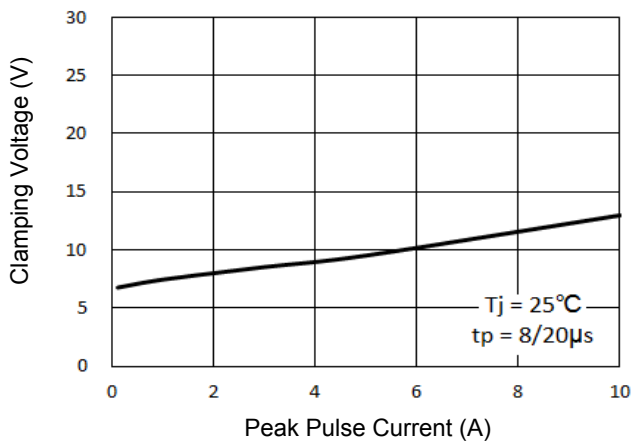
Tj = 25℃
tp = 8/20µs

Clamping Voltage (V) / Peak Pulse Current (A)

Fig 4. Junction Capacitance

f = 1MHz

I/O-GND

I/O-I/O

Junction Capacitance (pF) / Reverse Voltage (V)

Fig. 5 TLP Curve

Ta=25℃
I/O-GND
tp=100ns,tn=0.2ns
t$_{MEAS}$=70-90ns

TLP Current (A) / TLP Voltage (V)
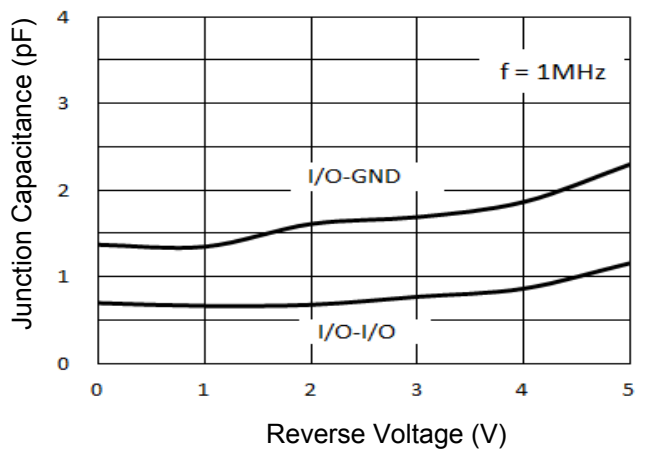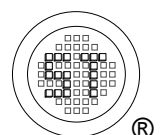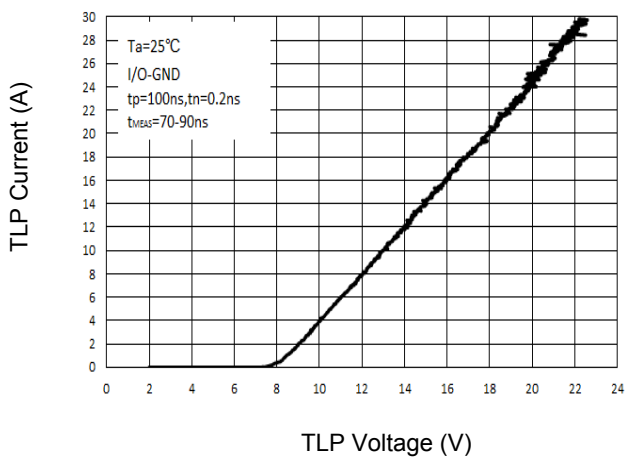
ESDLC3050D

Package Outline (Dimensions in mm)   **SOT-26**
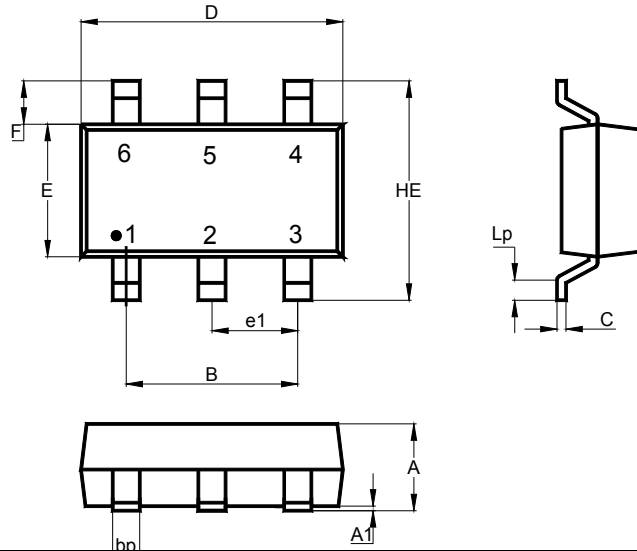
Unit	A	A1	B	C	D	E	e1	F	HE	Lp	bp
mm	1.2	0.1	2.1	0.20	3.1	1.7	0.95	0.65	3.0	0.6	0.5
	1.0	0	1.7	0.08	2.7	1.3	typ.	0.6	2.6	0.2	0.3

Recommended Soldering Footprint
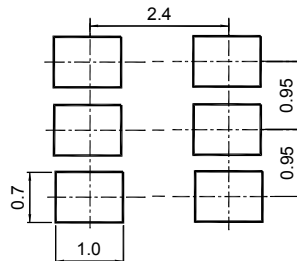
Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-26	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" L6 " = Part No.

"YM" = Date Code Marking

"Y" = Year

"M" = Month

Font type: Arial

YM

L6

Pin1 point