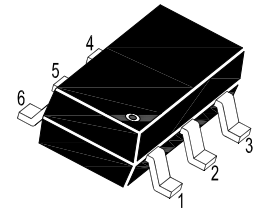
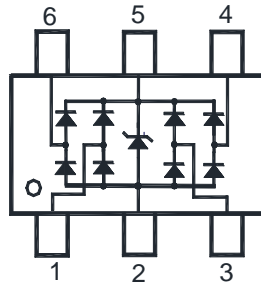


ESDLC0554D

ESD Protection Diode

Features

- Low clamping voltage
- Low operating voltage



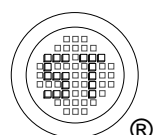
1. I/O1 2. GND 3. I/O2
4. I/O3 5. Vcc 6. I/O4
SOT-26 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20 \mu\text{s}$)	P_{PK}	375	W
Peak Pulse Current ($t_p = 8/20 \mu\text{s}$)	I_{PP}	25	A
ESD per IEC 61000-4-2 Air Contact	V_{ESD}	± 30 ± 25	KV
Operating Junction Temperature Range	T_j	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	V_{RWM}	-	-	5	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	$V_{(BR)R}$	6	-	-	V
Reverse Current at $V_R = 5 \text{ V}$	I_R	-	-	0.5	μA
Clamping Voltage at $I_{PP} = 1 \text{ A}$, $t_p = 8/20 \mu\text{s}$, Any I/O to GND at $I_{PP} = 10 \text{ A}$, $t_p = 8/20 \mu\text{s}$, Any I/O to GND at $I_{PP} = 25 \text{ A}$, $t_p = 8/20 \mu\text{s}$, Any I/O to GND	V_C	-	-	9.8 12 15	V
Junction Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$, Any I/O to GND	C_j	-	-	5	pF
Junction Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$, I/O to I/O	C_j	-	3	-	pF



ESDLC0554D

Electrical Characteristics Curves

Fig 1. Pulse Waveform

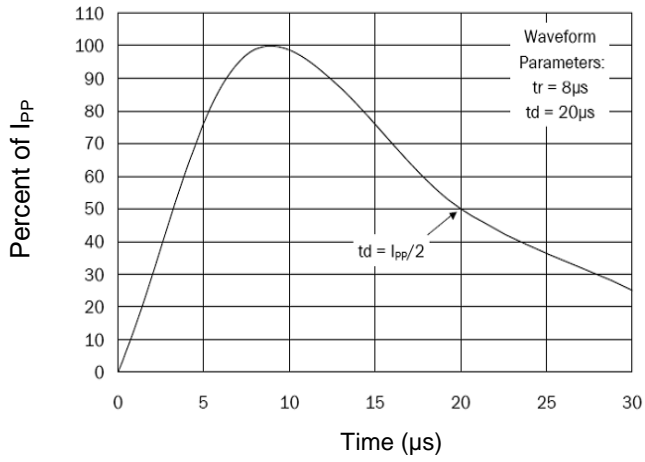


Fig 2. Power Derating Curve

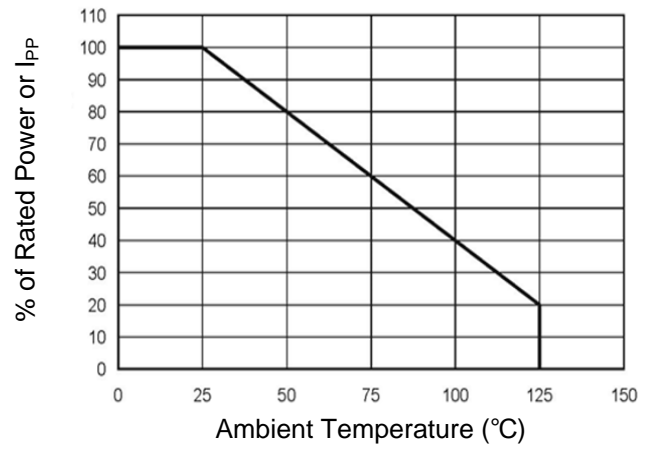


Fig 3. Clamping Voltage Curve

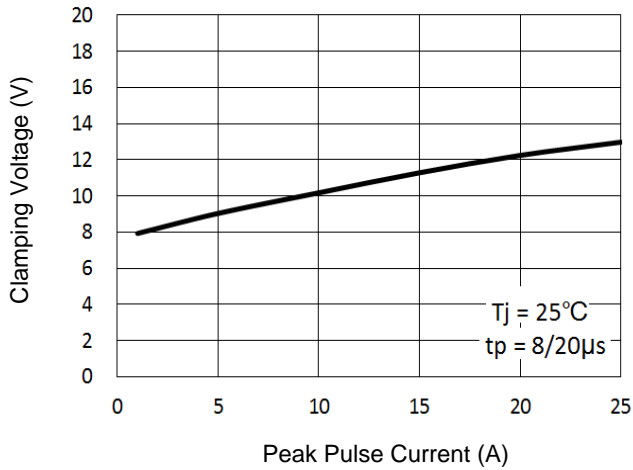


Fig 4. Junction Capacitance

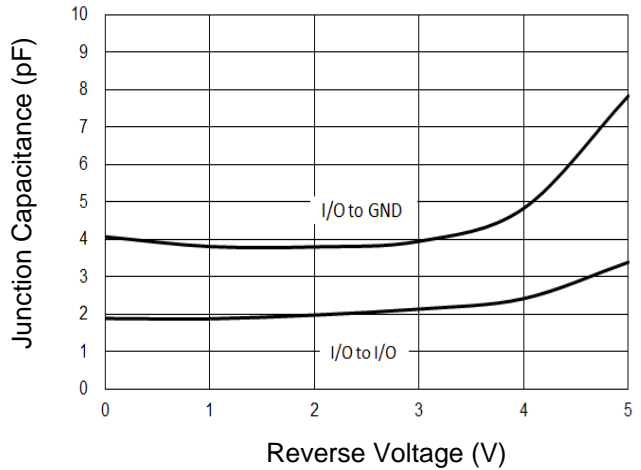
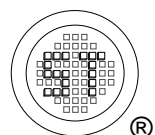
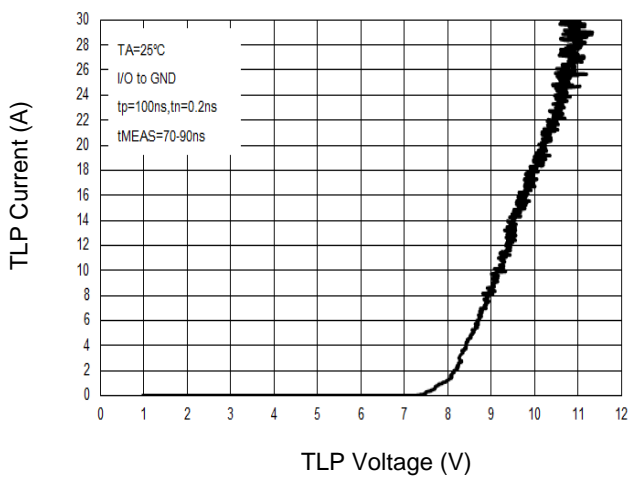


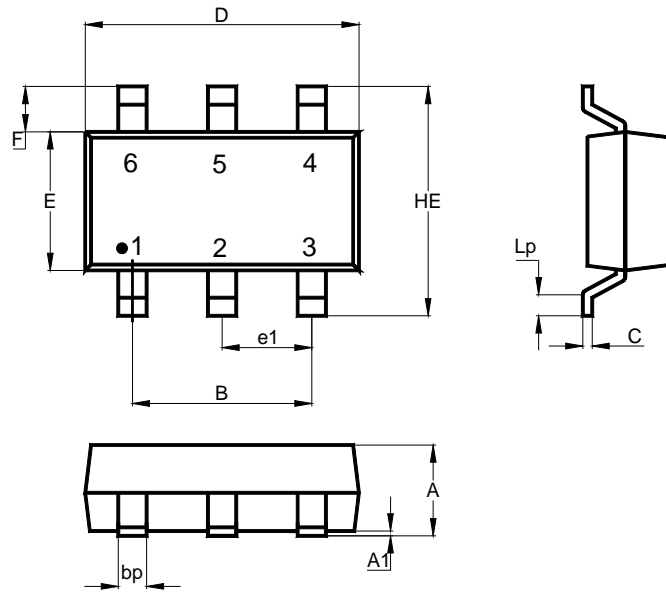
Fig 5. TLP Curve



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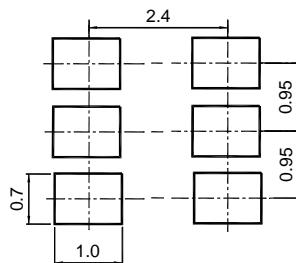
Package Outline (Dimensions in mm)

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

" F8 " = Part No.
 "YM" = Date Code Marking
 "Y" = Year
 "M" = Month
 Font type: Arial

