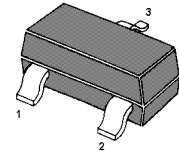
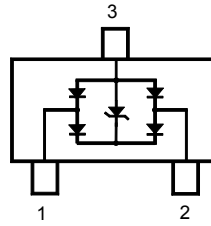


# E5V5LUKA2D

## ESD Protection Diode

### Features

- Low capacitance



1. I/O 2. I/O 3.GND  
SOT-23 Plastic Package

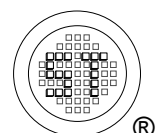
### Absolute Maximum Ratings (at $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $t_p = 8/20 \mu\text{s}$ )	$P_{PK}$	192	W
Peak Pulse Current ( $t_p = 8/20 \mu\text{s}$ )	$I_{PP}$	12	A
IEC61000-4-2 (ESD) Air Contact	$V_{ESD}$	$\pm 15$ $\pm 8$	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	$V_{RWM}$	-	-	5.5	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$ , I/O to GND	$V_{(BR)R}$	7	-	12	V
Reverse Current at $V_{RWM} = 5.5 \text{ V}$ , I/O to GND	$I_R$	-	-	1	$\mu\text{A}$
Forward voltage at $I_F = 15 \text{ mA}$ , GND to Any I/O	$V_F$	-	-	1.1	V
Clamping Voltage at $I_{PP} = 5 \text{ A}$ , $t_p = 8/20 \mu\text{s}$ , I/O to GND at $I_{PP} = 12 \text{ A}$ , $t_p = 8/20 \mu\text{s}$ , I/O to GND	$V_C$	-	-	12 16	V
ESD Clamping Voltage at $I_{TLP} = 4 \text{ A}$ , $t_p = 0.2/100 \text{ ns}$ , I/O to GND at $I_{TLP} = 16 \text{ A}$ , $t_p = 0.2/100 \text{ ns}$ , I/O to GND	$V_{CL}$	-	9.6 14.5	-	V
Junction Capacitance at $V_R = 2.5 \text{ V}$ , $f = 1 \text{ MHz}$ , I/O to GND	$C_j$	-	1.2	1.7	pF
Dynamic Resistance <sup>1)</sup>	$R_{dyn}$	-	0.41	-	$\Omega$

<sup>1)</sup> Dynamic Resistance calculated from  $I_{TLP} = 4 \text{ A}$  to  $I_{TLP} = 16 \text{ A}$ .



# E5V5LUKA2D

## Electrical Characteristic Curves

Fig 1. Pulse Waveform

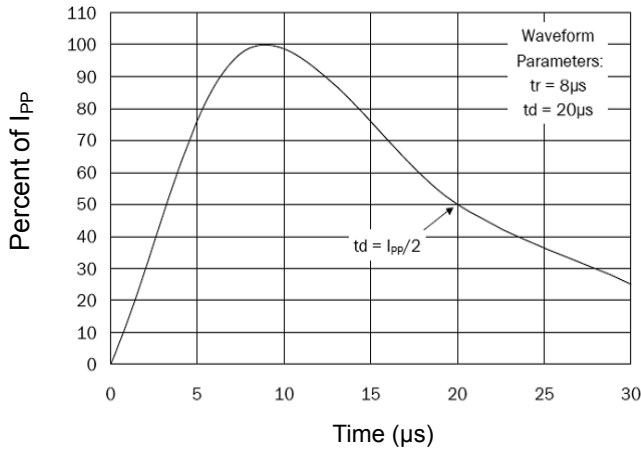


Fig 2. Power Derating Curve

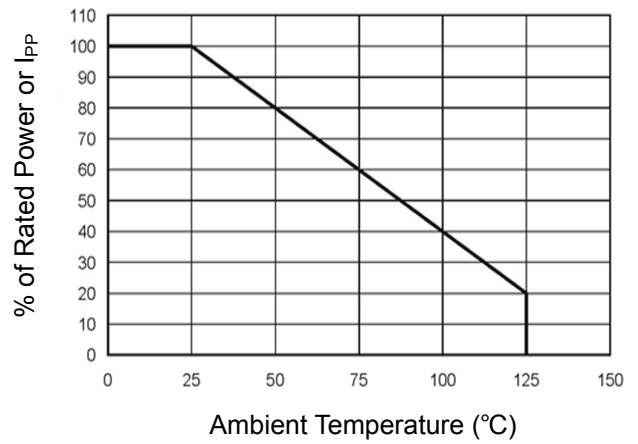


Fig 3. Clamping Voltage Curve

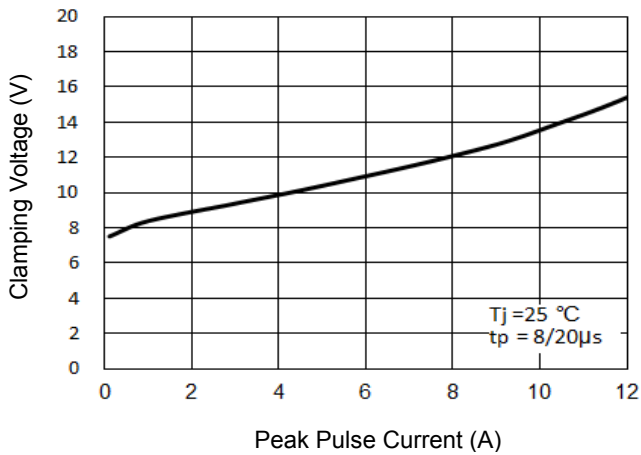


Fig 4. Junction Capacitance

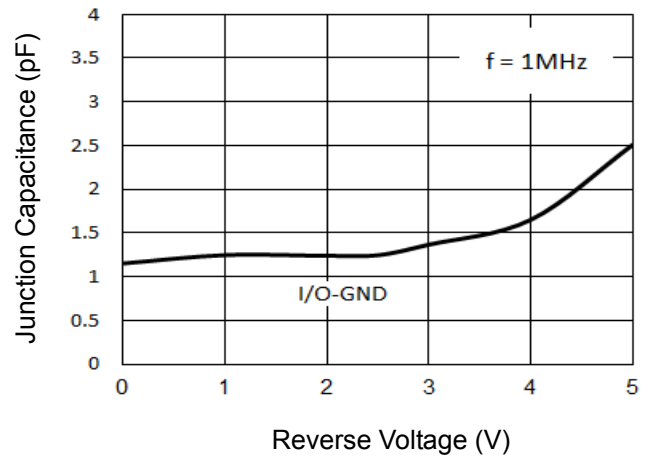
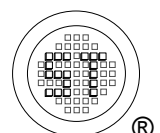
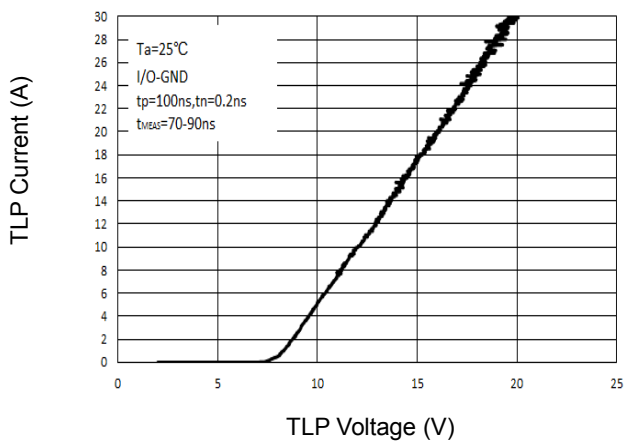


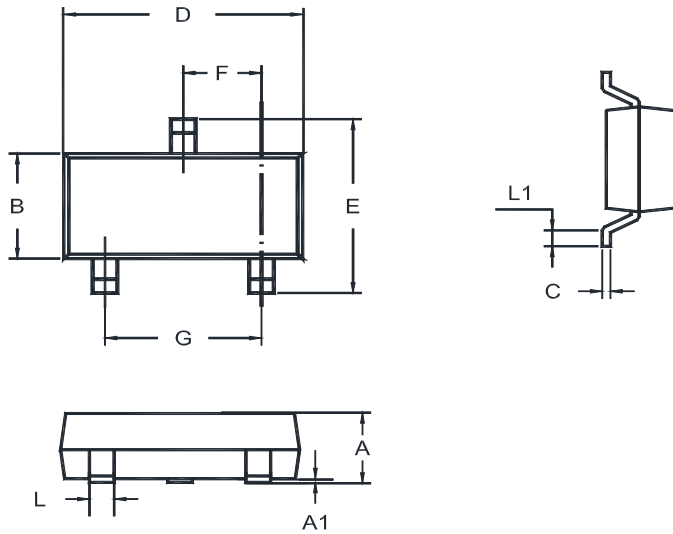
Fig 5 TLP Curve



# E5V5LUKA2D

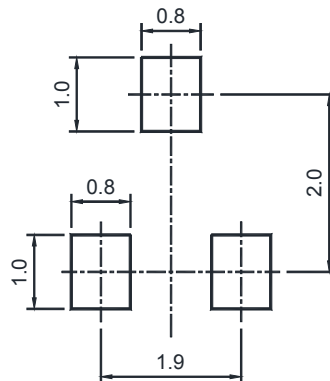
## Package Outline (Dimensions in mm)

SOT-23



Unit	A	A1	B	C	D	E	F	G	L	L1
mm	1.20	0.100	1.40	0.19	3.04	2.6	1.02	2.04	0.51	0.2
	0.89	0.013	1.20	0.08	2.80	2.2	0.89	1.78	0.37	MIN

## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-23	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

## Marking information

" EE1 " = Part No.  
 " YM " = Date Code Marking  
 " Y " = Year  
 " M " = Month  
 Font type: Arial

