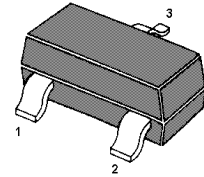
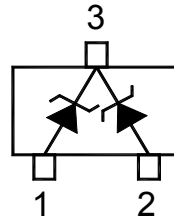


ESDB1105CC

ESD Protection Diode

Features

- Low leakage current



1. Anode 2. Anode 3. Cathode
SOT-23 Plastic Package

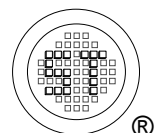
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20 \mu\text{s}$)	P_{PK}	350	W
Peak Pulse Current ($t_p = 8/20 \mu\text{s}$)	I_{PP}	8	A
ESD (IEC 61000-4-2) Air Contact	V_{ESD}	± 30	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}	-	-	24	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	$V_{(BR)R}$	25.7	-	28.4	V
Reverse Current at $V_{RWM} = 24 \text{ V}$	I_R	-	-	100	nA
Clamping Voltage at $I_{PP} = 5 \text{ A}$, $t_p = 8/20 \mu\text{s}$ at $I_{PP} = 8 \text{ A}$, $t_p = 8/20 \mu\text{s}$	V_C	-	-	40 44	V
Clamping Voltage at $I_{TLP} = 4 \text{ A}$, $t_p = 0.2/100 \text{ ns}$ at $I_{TLP} = 16 \text{ A}$, $t_p = 0.2/100 \text{ ns}$	V_{CL}	-	27.1 28.8	-	V
Junction Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$, Pin 3 to Pin 1, Pin 3 to Pin 2 at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$, Pin 1 to Pin 2	C_j	-	-	60 30	pF
Dynamic Resistance ¹⁾	R_{dyn}	-	0.14	-	Ω

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



Electrical Characteristic Curves

Fig 1. Pulse Waveform

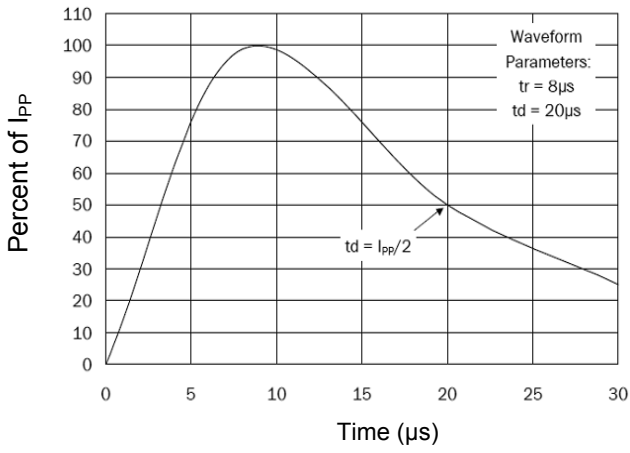


Fig 2. Power Derating Curve

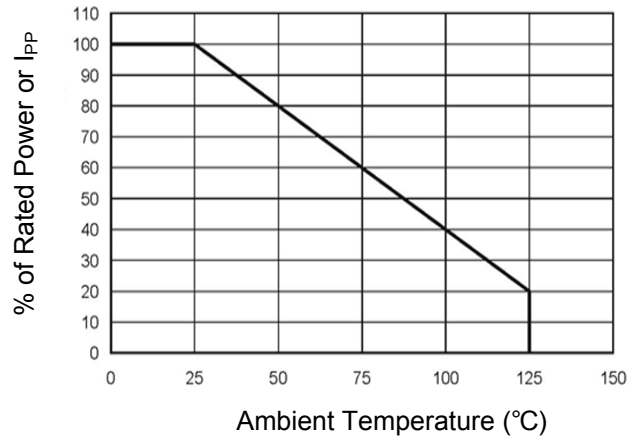


Fig 3. Clamping Voltage Curve

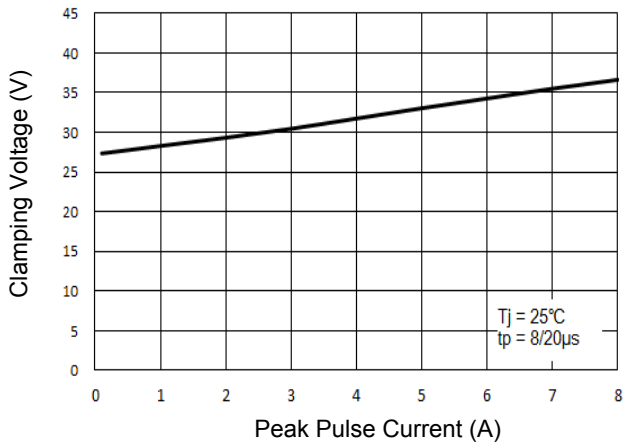


Fig 4. Junction Capacitance

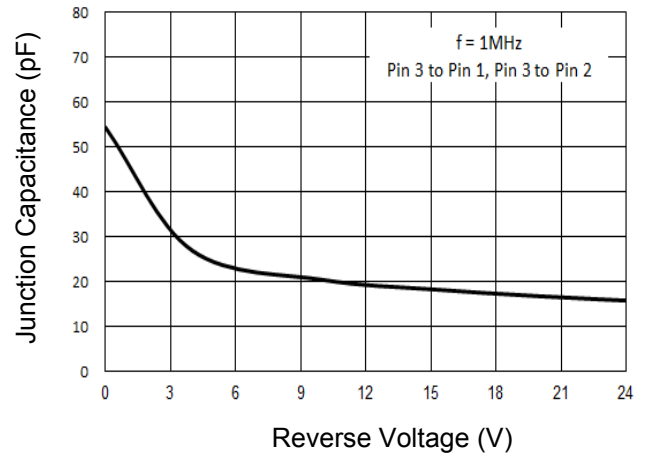
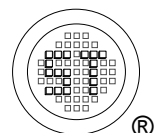
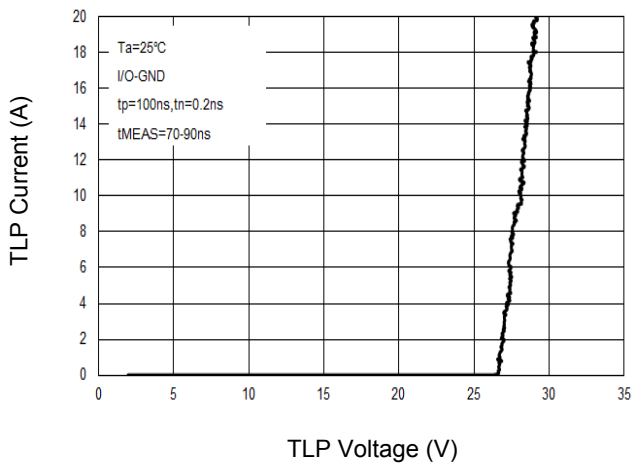


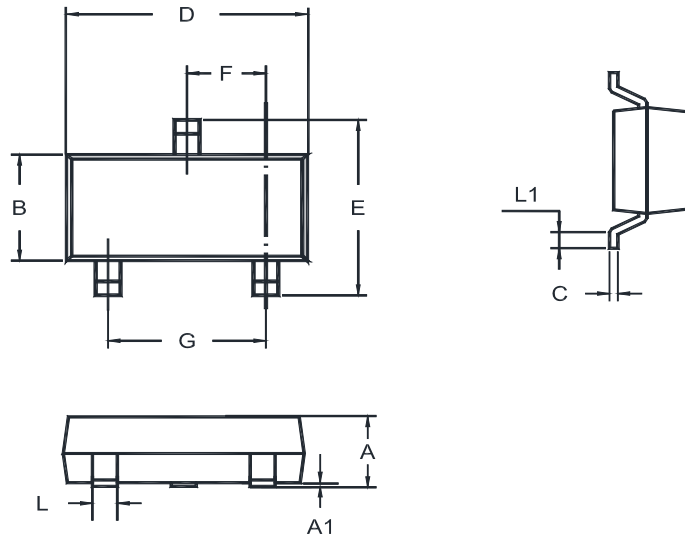
Fig 5 TLP Curve



ESDB1105CC

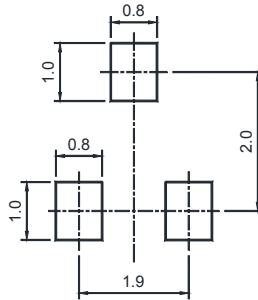
Package Outline (Dimensions in mm)

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

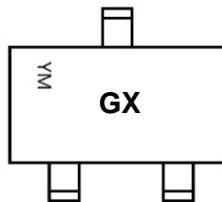


Packing information

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

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



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