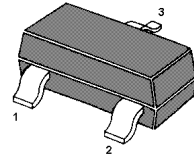
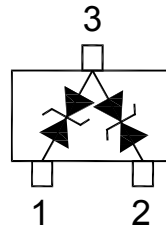


ESDBL24CX-CH

ESD Protection Diode

Features

- AEC-Q101 Qualified
- Low clamping voltage
- Ultra low leakage current
- Double Bi-direction high reliability
- Halogen and Antimony Free(HAF),
RoHS compliant



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

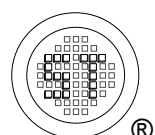
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20 \mu\text{s}$)	P_{PK}	200	W
Peak Pulse Current ($t_p = 8/20 \mu\text{s}$)	I_{PP}	3	A
ESD (IEC61000-4-2) Air Contact	V_{ESD}	± 25 ± 25	KV
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
Working Peak Reverse Voltage	V_{RWM}	-	-	24	V
Reverse Breakdown Voltage at $I_R = 5 \text{ mA}$	$V_{(BR)R}$	25.4	-	30.3	V
Reverse Current at $V_{RWM} = 24 \text{ V}$	I_R	-	-	50	nA
Clamping Voltage at $I_{PP} = 1 \text{ A}$, $t_p = 8/20 \mu\text{s}$ at $I_{PP} = 3 \text{ A}$, $t_p = 8/20 \mu\text{s}$	V_C	-	-	40 70	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}	-	27.9 31.3	-	V
Junction Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$	C_j	-	26	-	pF
Dynamic Resistance ¹⁾	R_{dyn}	-	0.28	-	Ω

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



Electrical Characteristics Curves

Fig 1. Pulse Waveform

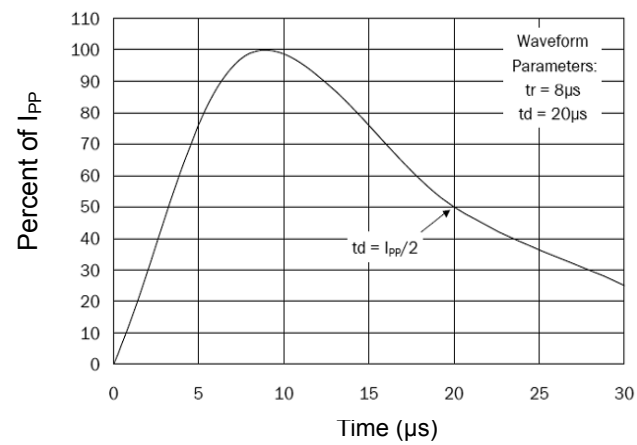


Fig 2. Power Derating Curve

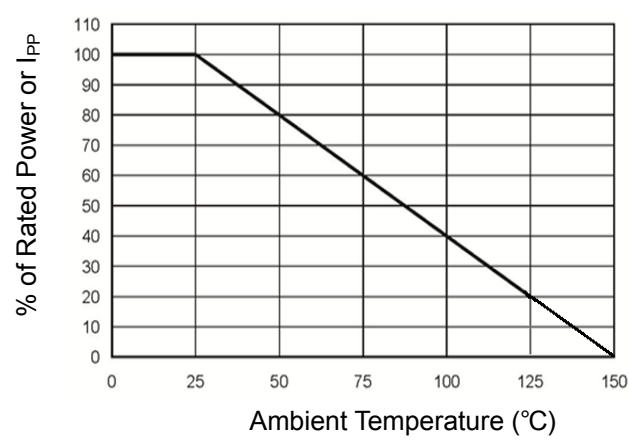


Fig 3. Clamping Voltage Curve

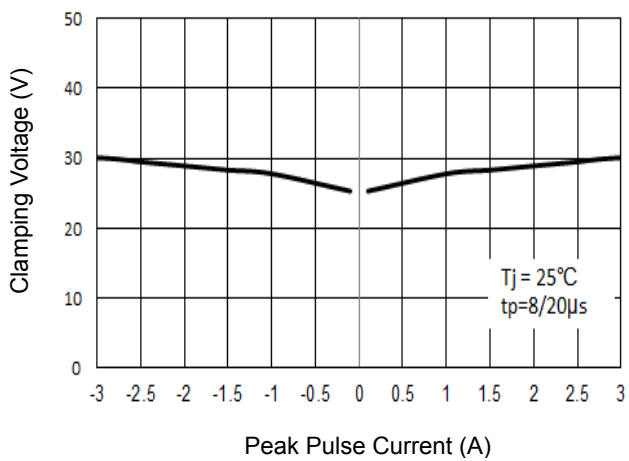


Fig 4. Junction Capacitance

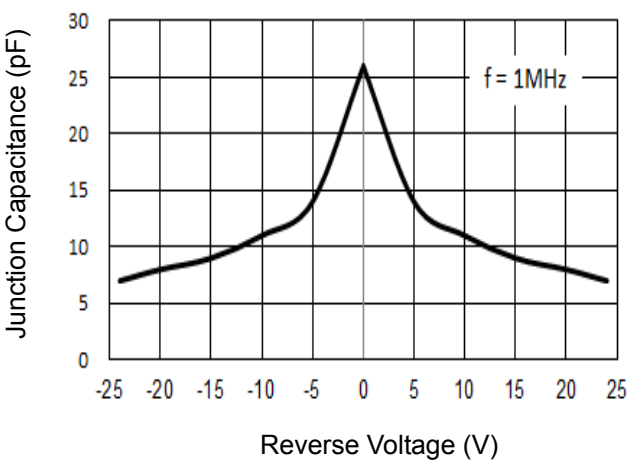
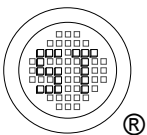
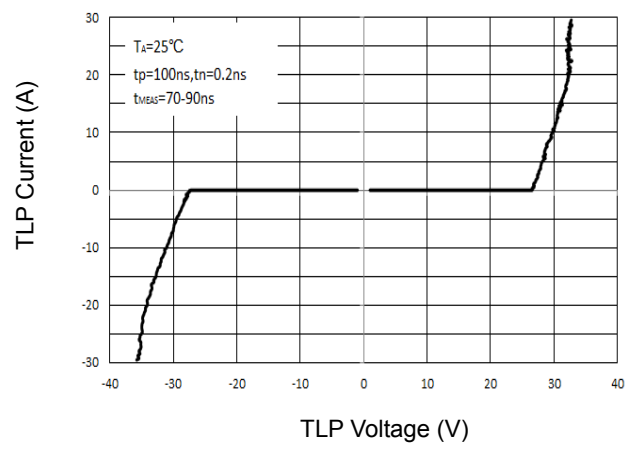
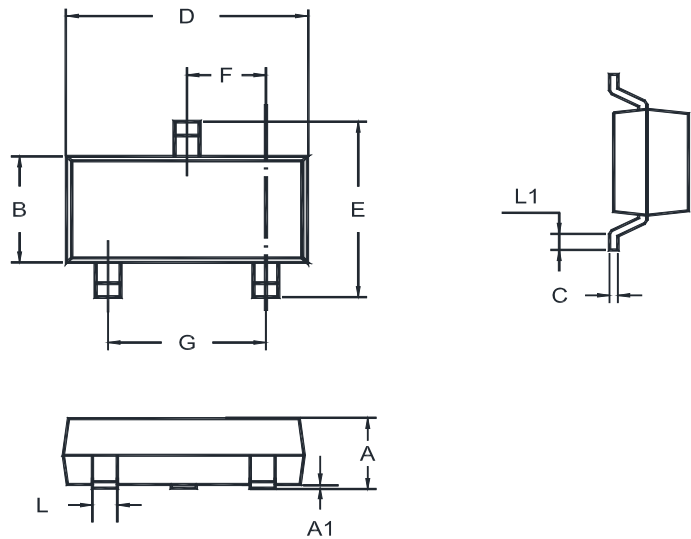


Fig. 5 TLP Curve



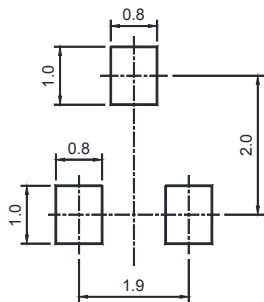
Package Outline (Dimensions in mm)

SOT-23



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

Recommended Soldering Footprint

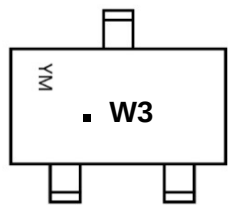


Packing information

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

" W3 " = Part No.
 " . " = HAF (Halogen and Antimony Free)
 " YM " = Date Code Marking
 " Y " = Year
 " M " = Month
 Font type: Arial



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