

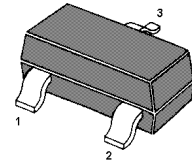
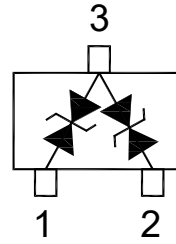
ESDBL2105DX-AH

Transient Voltage Suppressor

ESD Protection

Features

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



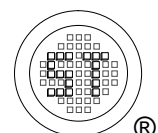
SOT-23 Plastic Package

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

Parameter	Symbol	Value	Unit
IEC61000-4-2 (ESD) Air Contact	V_{ESD}	± 30	KV
Peak Pulse Power ($t_p = 8/20 \mu\text{s}$)	P_{pk}	350	W
Peak Current, Pulsed ($t_p = 8/20 \mu\text{s}$)	I_{PP}	8	A
Operating Junction Temperature	T_j	- 40 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.	Max.	Unit
Working Peak Reverse Voltage	V_{RWM}	24	-	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	$V_{(\text{BR})R}$	26.2	32	V
Reverse Current at $V_{\text{RWM}} = 24 \text{ V}$	I_R	-	100	nA
Clamping Voltage at $I_{\text{PP}} = 5 \text{ A}$, $t_p = 8/20 \mu\text{s}$ at $I_{\text{PP}} = 8 \text{ A}$, $t_p = 8/20 \mu\text{s}$	V_C	-	40 44	V
Junction Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$	C_j	-	30	pF



ESDBL2105DX-AH

Electrical Characteristics Curves

Figure 1. Pulse Waveform

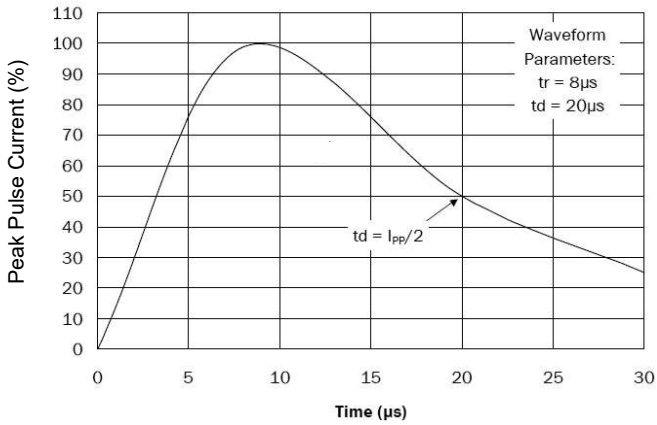


Figure 2. Temperature Power Dissipation Derating

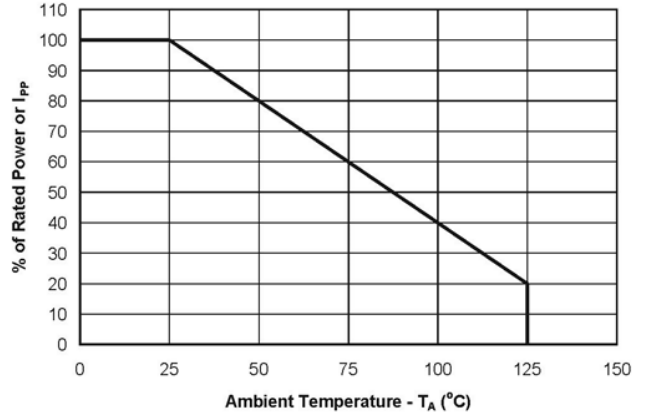


Figure 3. Clamping Voltage vs Peak Pulse Current

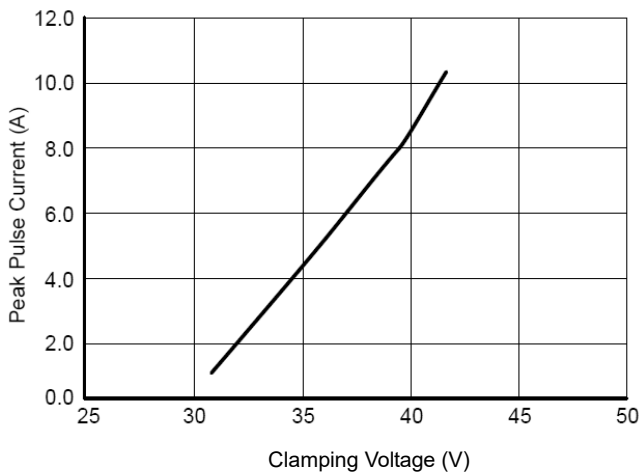


Figure 4. V_{BR} versus I_R Characteristics

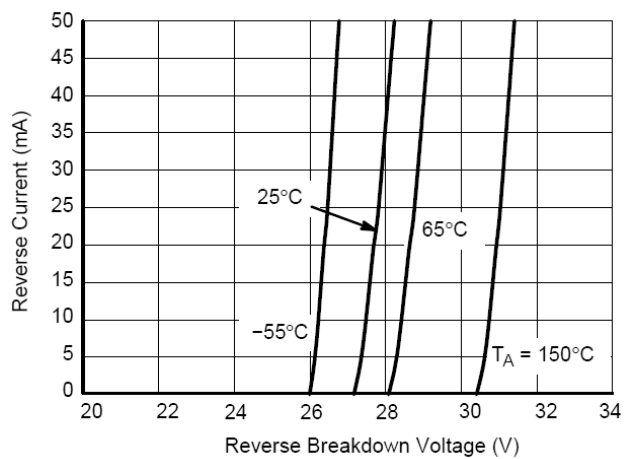
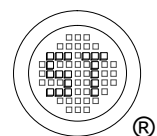
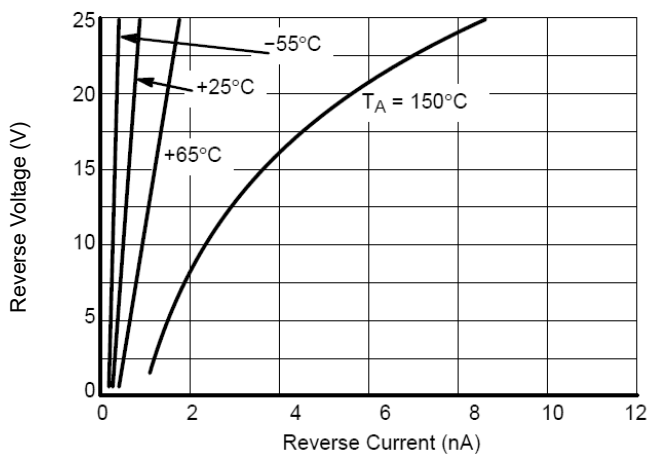


Figure 5. I_R versus Temperature Characteristics

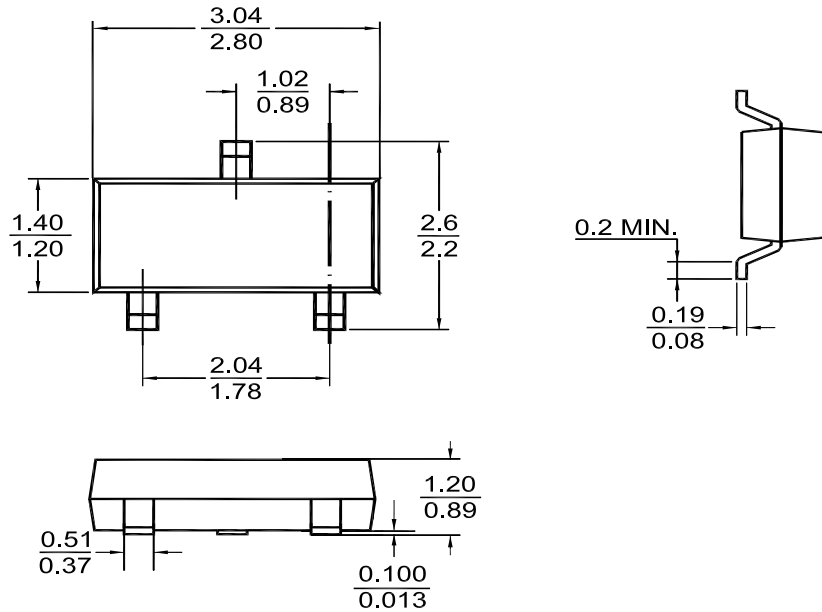


ESDBL2105DX-AH

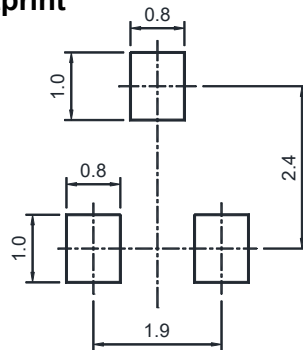
PACKAGE OUTLINE

Plastic surface mounted package (Dimensions in mm)

SOT-23



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

- "T5" = Part No.
- "•" = HAF (Halogen and Antimony Free)
- "YM" = Date Code Marking
- "Y" = Year
- "M" = Month
- Font type: Arial

