

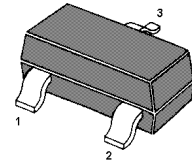
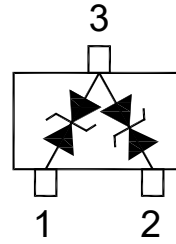
# ESDBL2105DX-AH

## 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



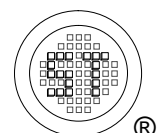
SOT-23 Plastic Package

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

Parameter	Symbol	Value	Unit
IEC61000-4-2 (ESD) Air Contact	$V_{\text{ESD}}$	$\pm 30$	KV
Peak Pulse Power ( $t_p = 8/20 \mu\text{s}$ )	$P_{\text{pk}}$	350	W
Peak Current, Pulsed ( $t_p = 8/20 \mu\text{s}$ )	$I_{\text{pp}}$	8	A
Operating Junction Temperature	$T_j$	- 40 to + 125	$^\circ\text{C}$
Storage Temperature Range	$T_{\text{stg}}$	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Working Peak Reverse Voltage	$V_{\text{RWM}}$	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

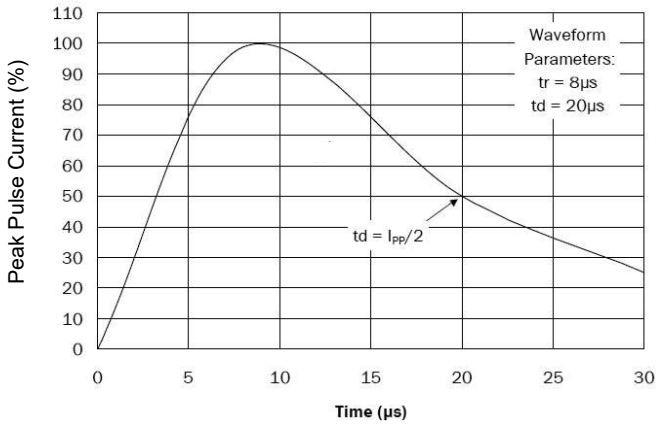


Figure 2. Temperature Power Dissipation Derating

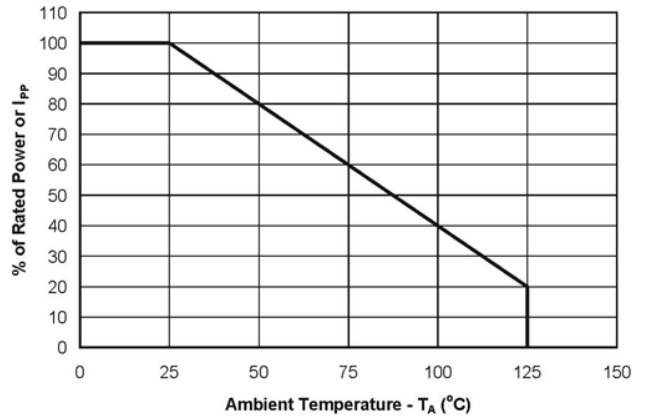


Figure 3. Clamping Voltage vs Peak Pulse Current

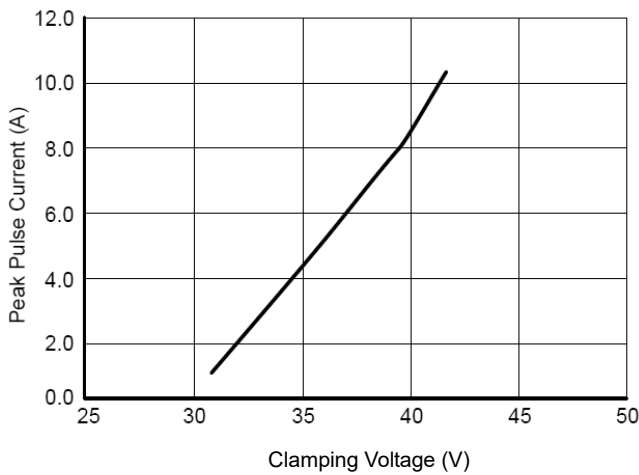


Figure 4.  $V_{BR}$  versus  $I_R$  Characteristics

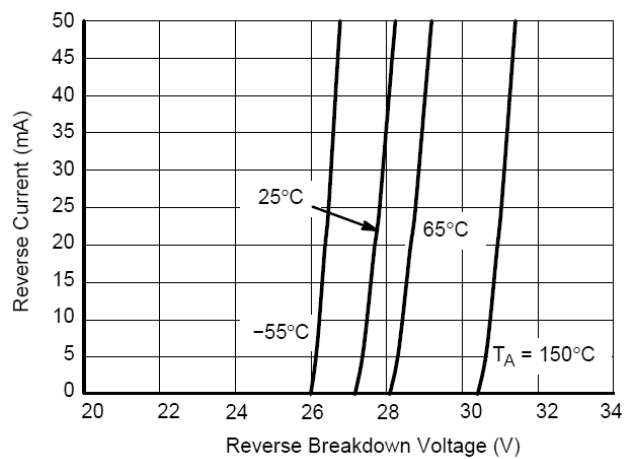
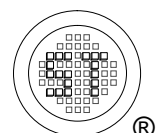
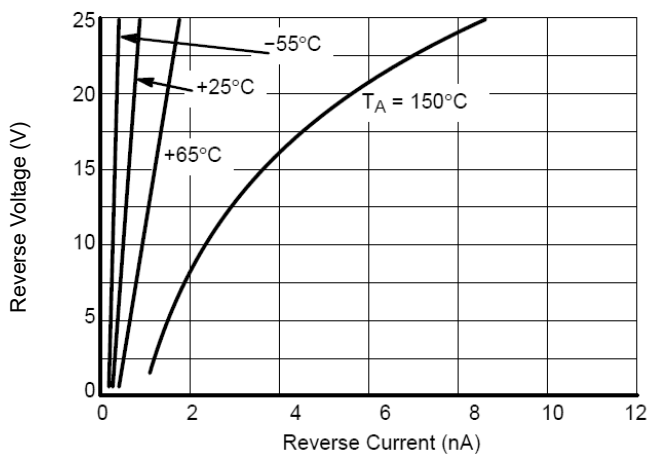


Figure 5.  $I_R$  versus Temperature Characteristics

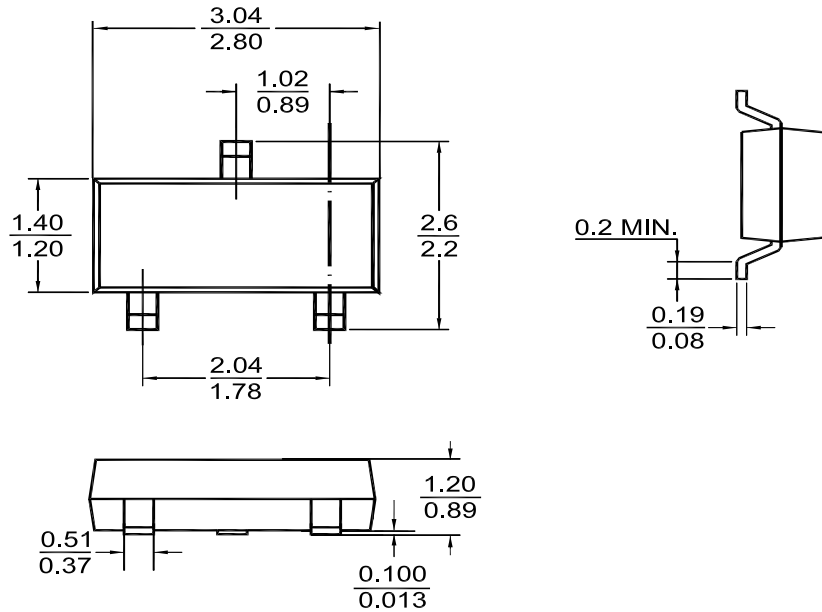


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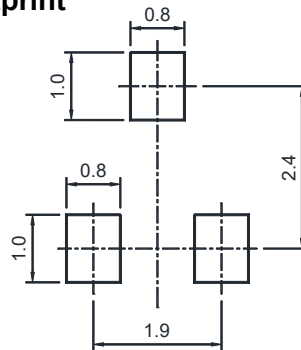
## PACKAGE OUTLINE

Plastic surface mounted package (Dimensions in mm)

SOT-23



## Recommended Soldering Footprint

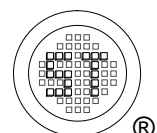
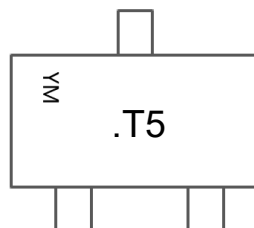


## Packing information

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



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