

# ESD5BL05WT-CH

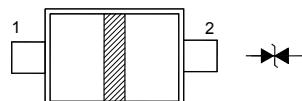
## ESD Protection Diode

### Features

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

### PINNING

PIN	DESCRIPTION
1	Anode
2	Anode



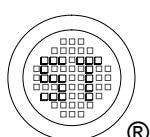
Top View  
Simplified outline SOD-523 and symbol

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

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $tp = 8/20 \mu\text{s}$ )	$P_{PK}$	75	W
Peak Pulse Current ( $tp = 8/20 \mu\text{s}$ )	$I_{PP}$	5	A
ESD (IEC61000-4-2)	$V_{ESD}$	$\pm 30$ $\pm 30$	kV
Operating Junction Temperature Range	$T_j$	- 55 to + 125	°C
Storage Temperature Range	$T_{stg}$	- 55 to + 150	°C

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	$V_{RWM}$	-	-	5	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	$V_{(BR)R}$	6	-	-	V
Reverse Current at $V_{RWM} = 5 \text{ V}$	$I_R$	-	-	1	μA
Clamping Voltage at $I_{PP} = 1 \text{ A}$ , $tp = 8/20 \mu\text{s}$ at $I_{PP} = 5 \text{ A}$ , $tp = 8/20 \mu\text{s}$	$V_C$	- -	- -	9.8 15	V
Junction Capacitance at $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$	$C_j$	-	10	-	pF



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## Electrical Characteristic Curves

Fig 1. Pulse Waveform

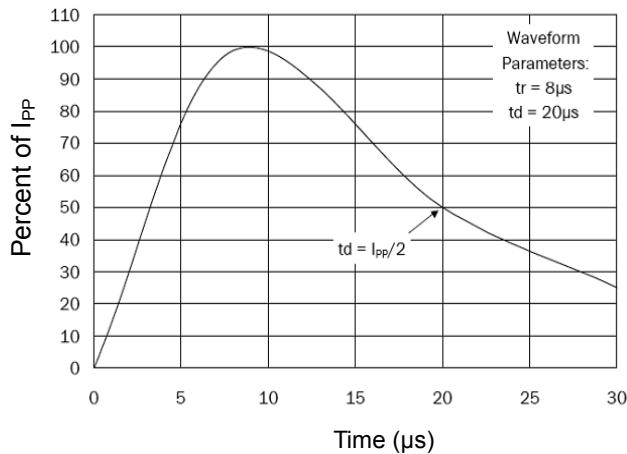


Fig 2. Power Derating Curve

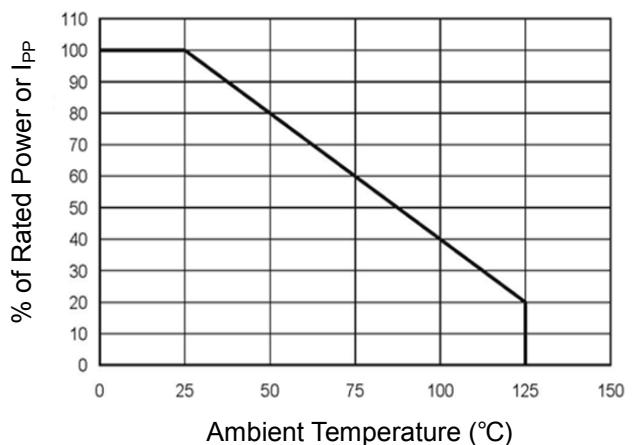


Fig 3. Clamping Voltage Curve

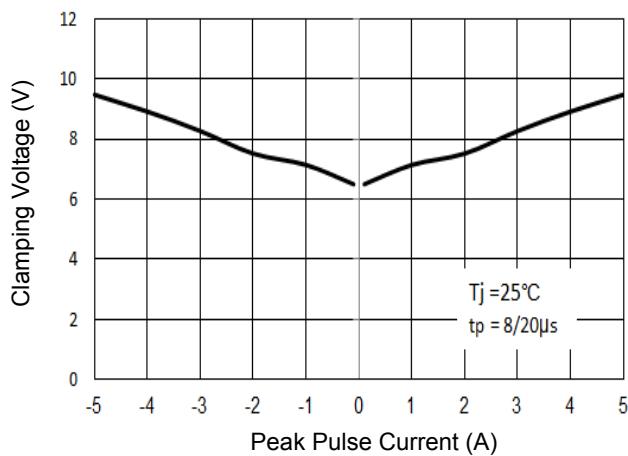


Fig 4. Junction Capacitance

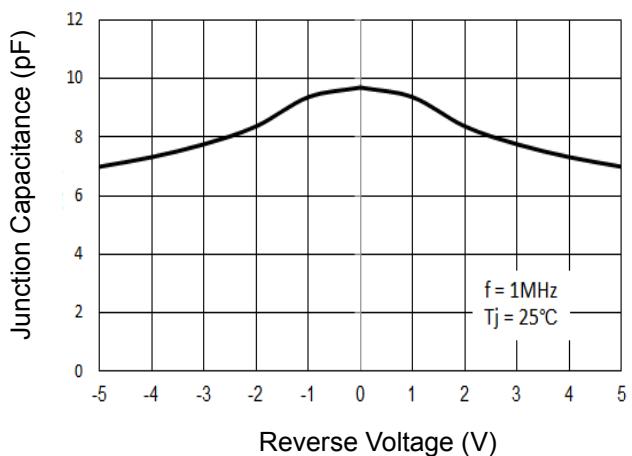
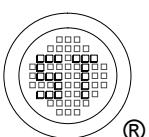
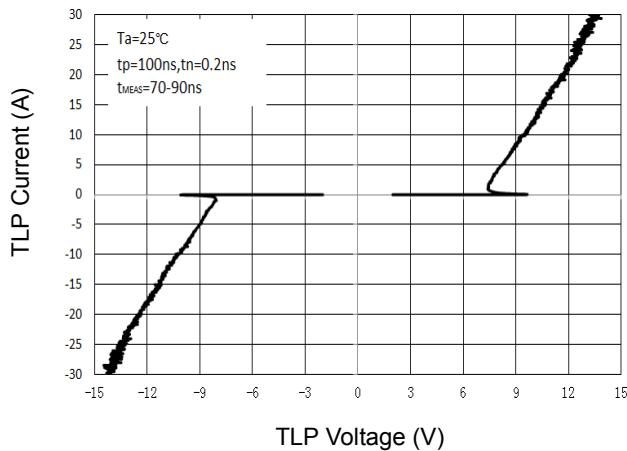


Fig. 5 TLP Curve

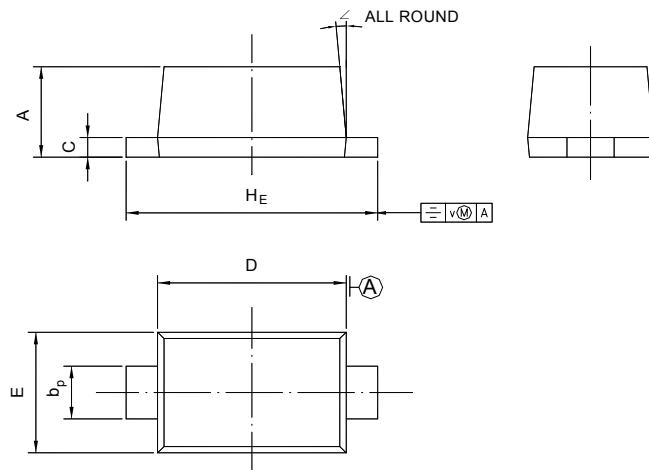


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## PACKAGE OUTLINE

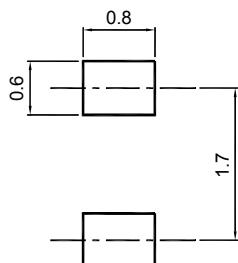
Plastic surface mounted package; 2 leads

SOD-523



UNIT	A	$b_p$	C	D	E	$H_E$	V	$\angle$
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°

## Recommended Soldering Footprint



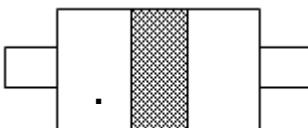
## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-523	8	$4 \pm 0.1$	$0.157 \pm 0.004$	178	7	4,000

## Marking information

" III ": Marking Line

" • " = HAF (Halogen and Antimony Free)



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