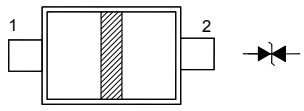
ESD5BL05WT-CH

ESD Protection Diode

PINNING

PIN	DESCRIPTION
1	Anode
2	Anode



Top View
Simplified outline SOD-523 and symbol

Features

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

Absolute Maximum Ratings (T_a = 25℃ unless otherwise specified)

Parameter		Symbol	Value	Unit
Peak Pulse Power (tp = 8/20 μs)		P_{PK}	75	W
Peak Pulse Current (tp = 8/20 μs)		I_{PP}	5	A
ESD (IEC61000-4-2)	Air Contact	V_{ESD}	± 30 ± 30	KV
Operating Junction Temperature Range		T_j	- 55 to + 125	℃
Storage Temperature Range		T_{stg}	- 55 to + 150	℃

Characteristics at Ta = 25℃

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

Dated: 01/09/2025 Rev : 01

Electrical Characteristic Curves

Fig 1. Pulse Waveform

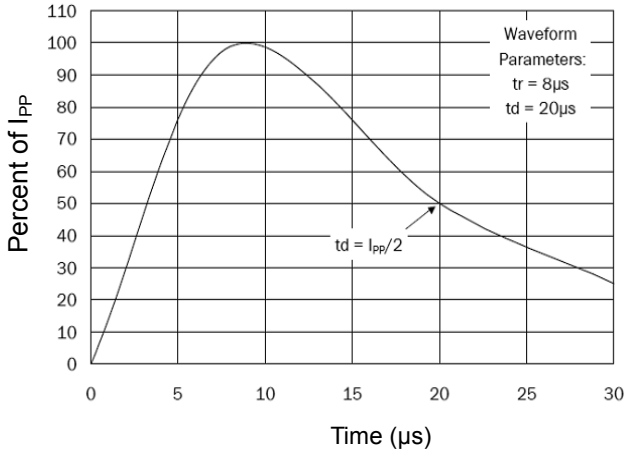


Fig 2. Power Derating Curve

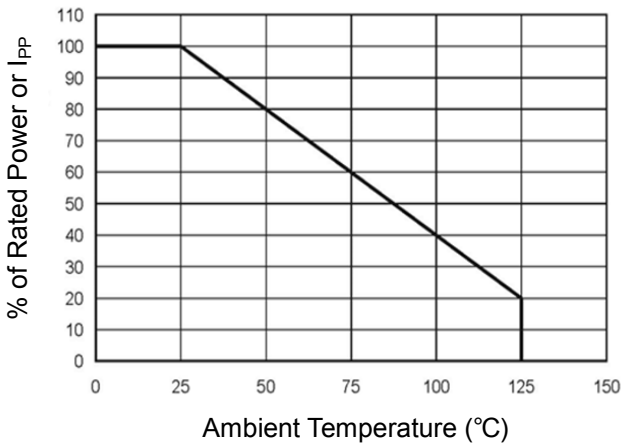


Fig 3. Clamping Voltage Curve

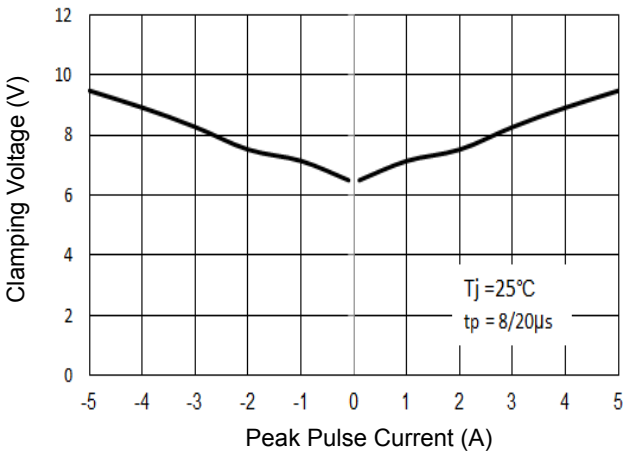


Fig 4. Junction Capacitance

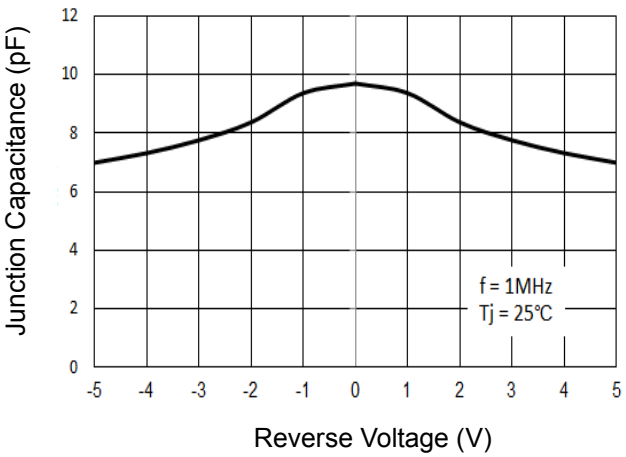
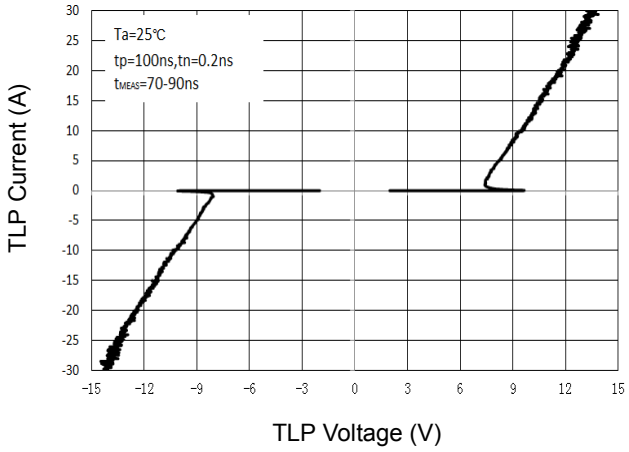
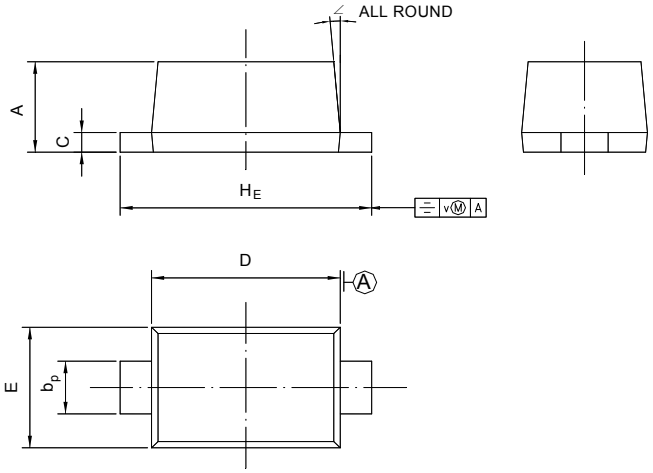


Fig. 5 TLP Curve



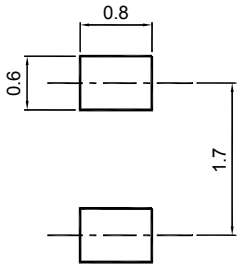
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-523**



UNIT	A	b_p	C	D	E	H_E	V	∠
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 ± 0.1	0.157 ± 0.004	178	7	4,000

Marking information

" III ": Marking Line

" • " = HAF (Halogen and Antimony Free)