

# ESDUL5V0WT

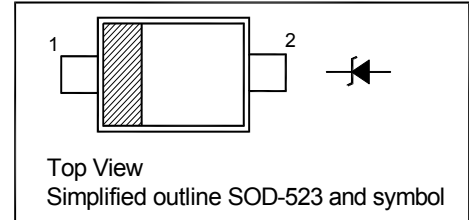
## ESD Protection Diode

### Features

- Ultra low capacitance
- Low clamping voltage
- Low leakage current

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



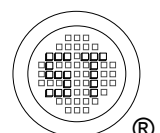
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
IEC61000-4-2 (ESD) Air Contact	$V_{\text{ESD}}$	$\pm 15$ $\pm 10$	KV
Total Power Dissipation on FR-5 Board <sup>1)</sup>	$P_D$	200	mW
Operating Temperature Range	$T_j$	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	$T_{\text{stg}}$	- 55 to + 150	$^\circ\text{C}$

<sup>1)</sup> FR-5 = 1 X 0.75 X 0.62 in.

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	$V_{\text{RWM}}$	-	-	5	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	$V_{(\text{BR})R}$	5.4	-	-	V
Reverse Current at $V_{\text{RWM}} = 5 \text{ V}$	$I_R$	-	-	1	$\mu\text{A}$
Clamping Voltage at $I_{\text{PP}} = 1 \text{ A}$ , $t_p = 8/20 \mu\text{s}$	$V_C$	-	-	9.8	V
Junction Capacitance at $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$	$C_j$	-	0.5	0.9	pF



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## Electrical Characteristic Curves

Fig 1. Pulse Waveform

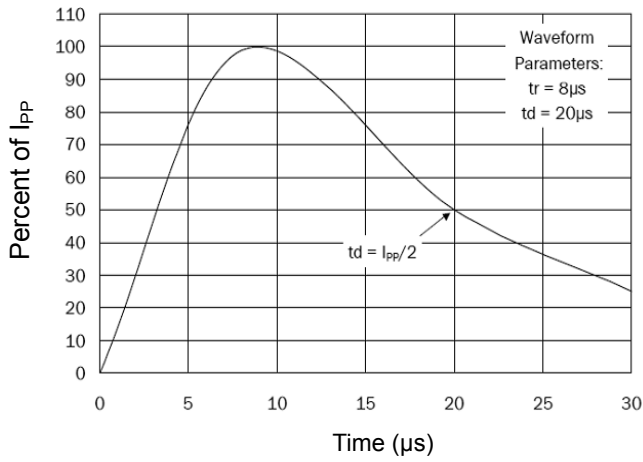


Fig 2. Power Derating Curve

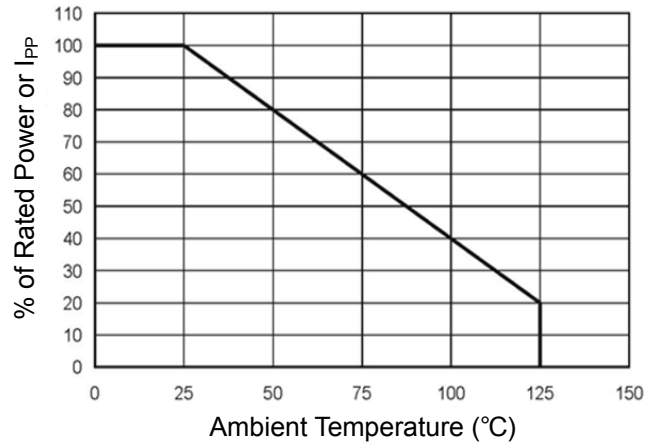


Fig 3. Clamping Voltage Curve

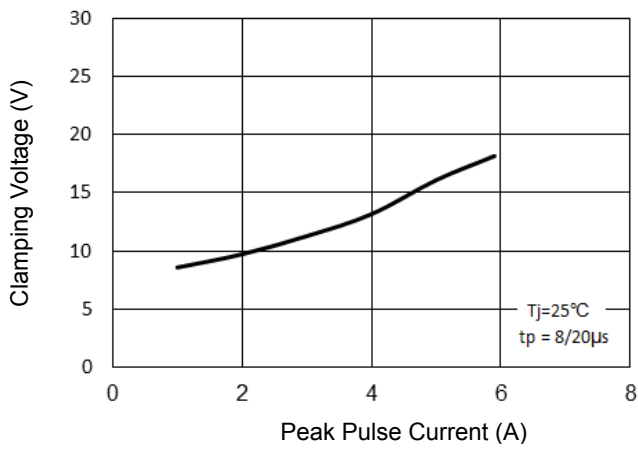


Fig 4. Junction Capacitance

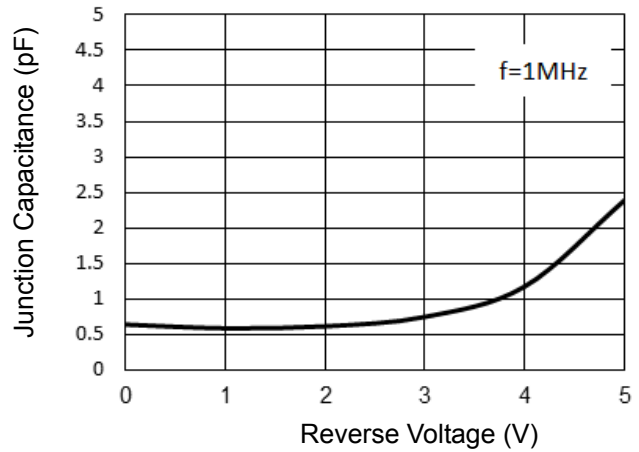
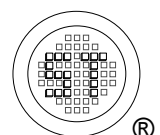
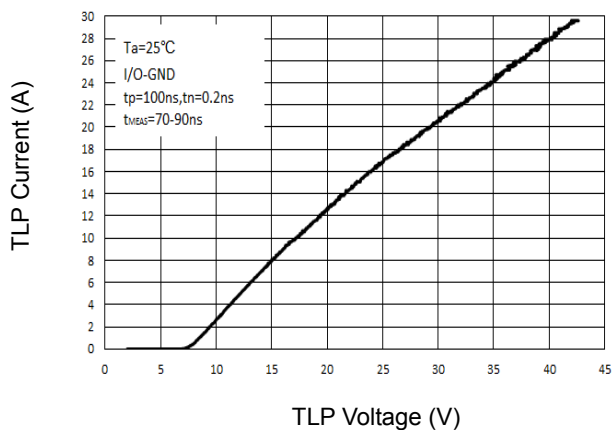


Fig 5 TLP Curve

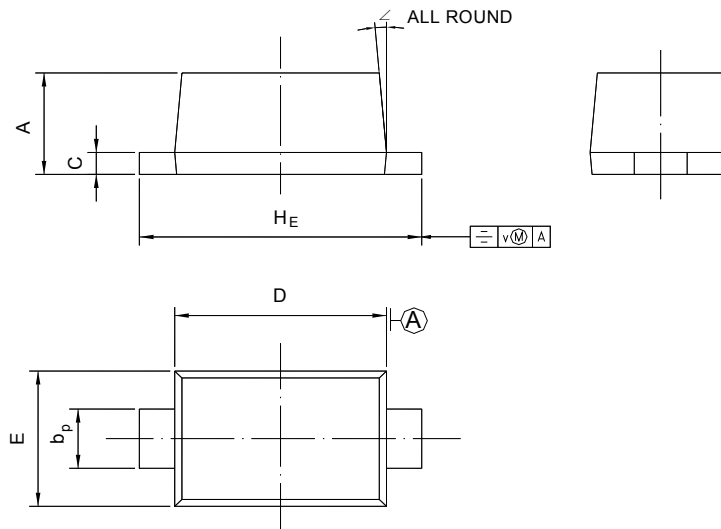


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## PACKAGE OUTLINE

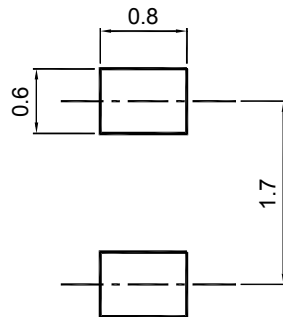
Plastic surface mounted package; 2 leads

SOD-523



UNIT	A	b <sub>p</sub>	C	D	E	H <sub>E</sub>	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

" U5 " = Part No.  
 " III " = Cathode line  
 Font type: Arial

