



## Discription

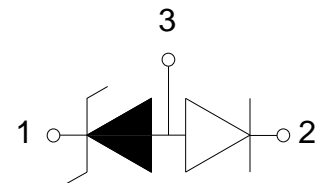
The HGL05T-E3-08 is an ultra-low capacitance TVS (Transient Voltage Suppressor) array designed to protect high speed data interfaces. It has been specifically designed to protect sensitive electronic components which are connected to data and transmission lines from over-stress caused by ESD(Electrostatic Discharge).



SOT-23

## Features

- ★ Transient protection for high-speed data lines  
IEC 61000-4-2(ESD)  $\pm 10\text{kV}$  (Contact)  
 $\pm 15\text{kV}$  (Air)  
IEC 61000-4-4(EFT) 40A (5/50 ns)
- ★ Peak power dissipation: 300W (8/20us)
- ★ Working voltages : 5V
- ★ Protecting one unidirectional lines
- ★ Low clamping voltage
- ★ Low leakage current



## Ordering information

Product ID	Pack	Qty(PCS)
HGL05T-E3-08	SOT-23	3000

## Absolute Ratings( $T_{amb} = 25^{\circ}\text{C}$ )

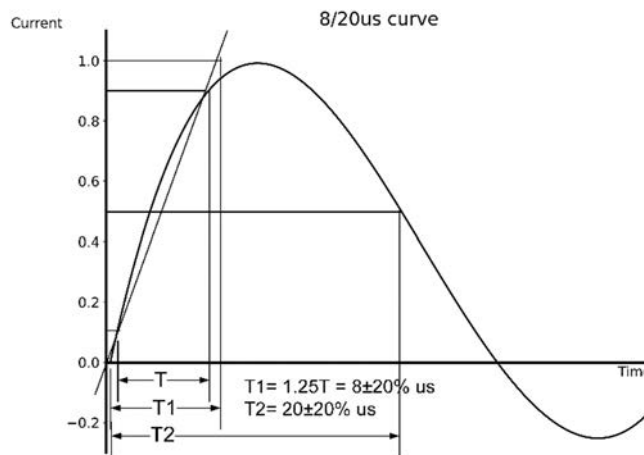
Symbol	Parameter	Value	Units	
$P_{PP}$	Peak Pulse Power ( $t_p = 8/20 \mu s$ )	300	W	
$T_L$	Maximum lead temperature for soldering during 10s	260	$^{\circ}\text{C}$	
$T_{stg}$	Storage Temperature Range	-55 to +155	$^{\circ}\text{C}$	
$T_{op}$	Operating Temperature Range	-40 to +125	$^{\circ}\text{C}$	
$T_j$	Maximum junction temperature	150	$^{\circ}\text{C}$	
	IEC61000-4-2 (ESD)	air discharge contact discharge	$\pm 15$ $\pm 10$	KV
	IEC61000-4-4 (EFT)	40	A	



### Electrical Characteristics

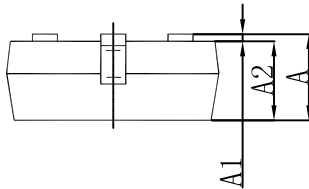
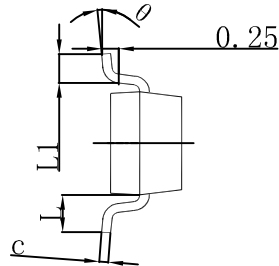
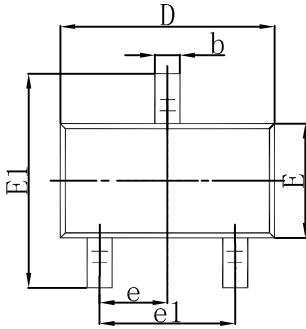
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
$V_{RWM}$	Reverse Working Voltage				5	V
$V_{BR}$	Reverse Breakdown Voltage	$I_T = 1mA$	6			V
$I_R$	Reverse Leakage Current	$V_{RWM} = 5V$			1	$\mu A$
$V_C$	Clamping Voltage	$I_{RWM} = 1A, t_p = 8/20\mu s$		9.5		V
		$I_{RWM} = 15A, t_p = 8/20\mu s$		12		V
$C_J$	Junction Capacitance	$V_R = 0V, f = 1MHz$		1.5		pF

### Typical Characteristics



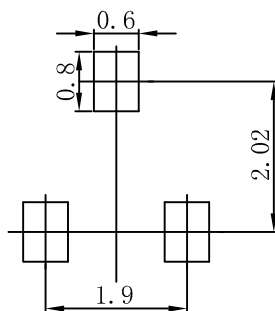


### SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

### SOT-23 Suggested Pad Layout



**Note:**

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.



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