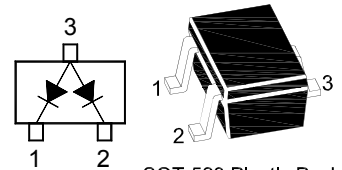


ESDL0502CAE

Ultra-Low Capacitance TVS

Features

- Protects up to two I/O lines
- Ultra-Low Capacitance
- Low leakage current and clamping voltage
- Low operating voltage



SOT-523 Plastic Package
Marking Code: **P5**

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

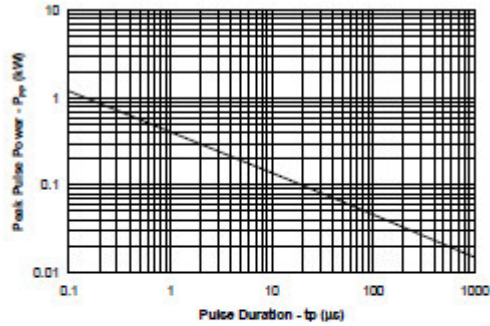
Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20 \mu\text{s}$)	P_{PK}	125	W
Peak Pulse Current ($t_p = 8/20 \mu\text{s}$)	I_{PP}	5	A
ESD Discharge (IEC61000-4-2)	V_{ESD}	18 12	KV
	Air Contact		
Junction Temperature	T_j	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

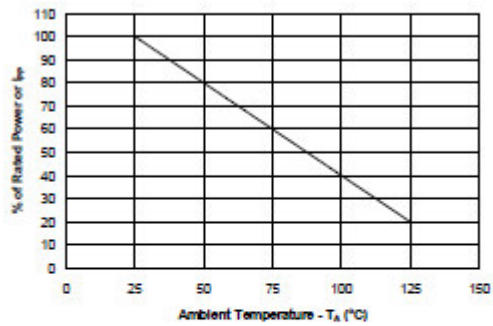
Parameter	Symbol	Min.	Max.	Unit
Reverse Working Voltage Pin 1 or Pin 2 to Pin 3 and Between Pins 1 and 2	V_{RWM}	-	5	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$ Pin 1 or Pin 2 to Pin 3 and Between Pins 1 and 2	$V_{(BR)R}$	6	-	V
Reverse Current at $V_R = 5 \text{ V}$ Pin 1 or Pin 2 to Pin 3 and Between Pins 1 and 2	I_R	-	1	μA
Clamping Voltage at $I_{PP} = 1 \text{ A}$, $t_p = 8/20 \mu\text{s}$; Pin 1 to Pin 2 at $I_{PP} = 5 \text{ A}$, $t_p = 8/20 \mu\text{s}$; Pin 1 or Pin 2 to Pin 3 at $I_{PP} = 5 \text{ A}$, $t_p = 8/20 \mu\text{s}$; Pin 1 to Pin 2	V_C	- - -	15 22 25	V
Junction Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$; Pin 1 to Pin 2 at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$; Pin 1 or Pin 2 to Pin 3	C_j	- -	0.9 1.2	pF

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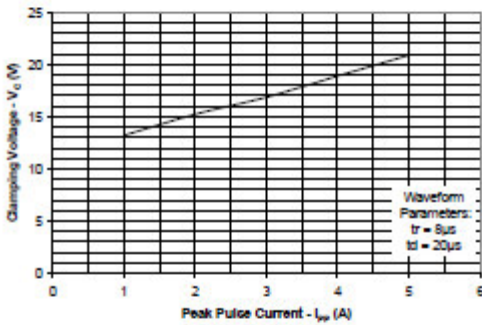
Non-Repetitive Peak Pulse Power vs. Pulse Time



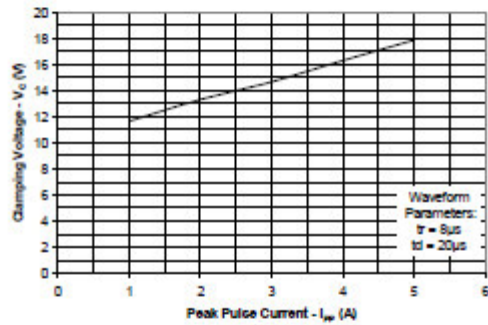
Power Derating Curve



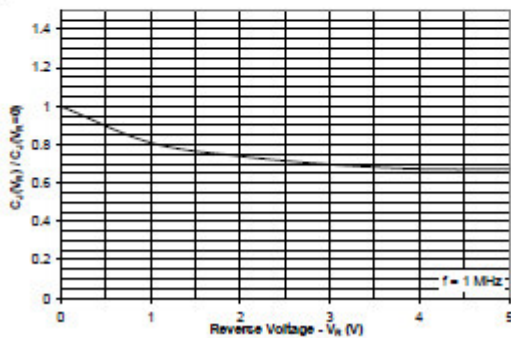
Clamping Voltage vs. Peak Pulse Current
Pin 1 to Pin 2



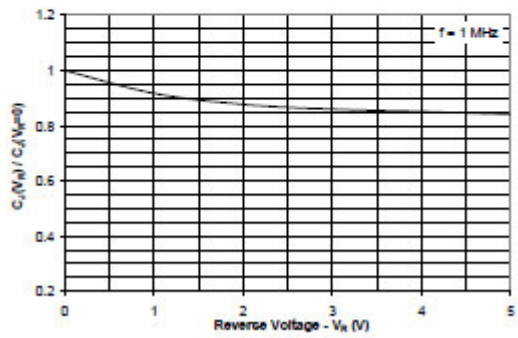
Clamping Voltage vs. Peak Pulse Current
Pin 1 or Pin 2 to Pin 3



Normalized Capacitance vs. Reverse Voltage
Pin 1 or Pin 2 to Pin 3



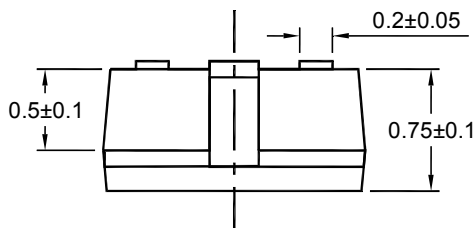
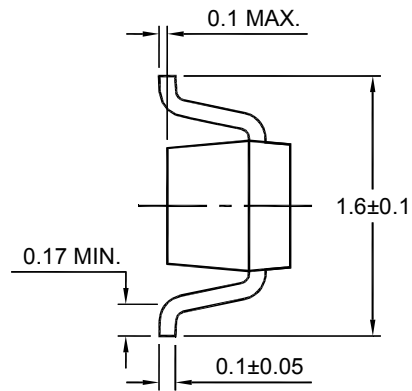
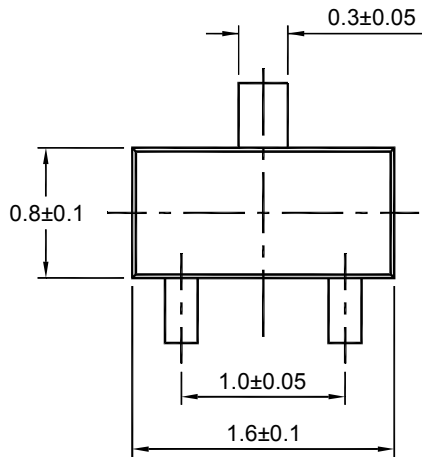
Normalized Capacitance vs. Reverse Voltage
Pin 1 to Pin 2



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Package Outline Dimensions (Units: mm)

SOT-523



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