



**APPLICATIONS**

- ◆ Desktops, Servers and Notebooks
- ◆ USB2.0 Power and Data Line Protection
- ◆ Display Ports
- ◆ Digital Visual Interfaces (DVI)
- ◆ HDMI 1.3/1.4

**IEC COMPATIBILITY**

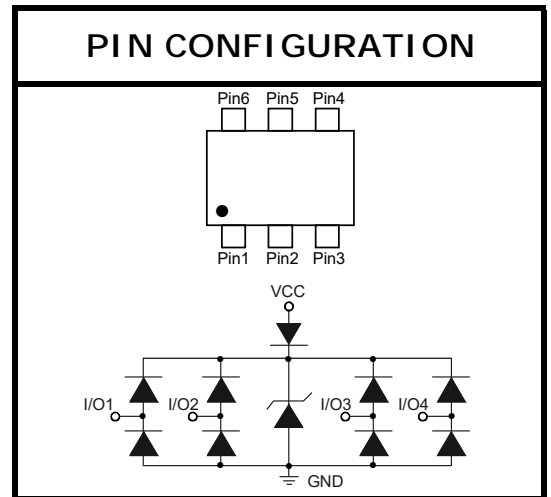
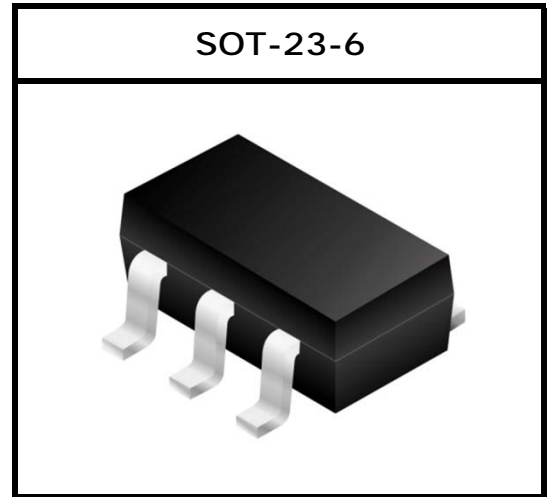
- ◆ IEC 61000-4-2 (ESD) ±24kV (Air), ±24kV (Contact)
- ◆ IEC 61000-4-5 (Surge) 3.5A (8/20 us) I/O pin to GND
- ◆ IEC 61000-4-5 (Surge) 6.9A (8/20us) VCC pin to GND

**FEATURES**

- ◆ Reverse Working Voltage : 5V
- ◆ Ultra-Low Capacitance : 0.6pF (typ.)
- ◆ Marking : : \_V05

**Pinning Information**

Pin	Symbol	Description
1	I/O 1	Channel 1 ESD Protection
2	GND	Ground
3	I/O 3	Channel 3 ESD Protection
4	I/O 4	Channel 4 ESD Protection
5	VCC	VCC
6	I/O 2	Channel 2 ESD Protection



# DEVICE CHARACTERISTICS

## YST0P6005TM

MAXIMUM RATING (TA=25°C UNLESS OTHERWISE NOTED)			
PARAMETER	SYMBOL	VALUE	UNITS
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	±24	kV
ESD per IEC 61000-4-2 (Contact)		±24	
Operating Temperature	T <sub>J</sub>	-55 ~ 150	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ 150	°C

ELECTRICAL CHARACTERISTICS (TA=25°C UNLESS OTHERWISE NOTED)						
PARAMETER	TEST CONDITION	SYMBOL	Min.	Typ.	Max.	UNITS
Reverse Working Voltage	I/O to GND	V <sub>RWM</sub>	-	-	5	V
Breakdown Voltage	I <sub>T</sub> =1mA, Any I/O to GND	V <sub>BR</sub>	6	-	8	V
Reverse Leakage Current	V <sub>RWM</sub> =5V, Any I/O to GND	I <sub>R</sub>	-	10	100	nA
Clamping Voltage (tp=8/20us)	I <sub>PP</sub> =1A, Any I/O Pin to GND	V <sub>C</sub>	-	8.3	-	V
	I <sub>PP</sub> =3A, Any I/O Pin to GND		-	10.1	-	
	I <sub>PP</sub> =1A, VCC to GND		-	7.9	-	
	I <sub>PP</sub> =6.9A, VCC to GND		-	11	-	
Junction Capacitance	V <sub>R</sub> =0V, f=1MHz, I/O to GND	C <sub>J</sub>	-	0.55	-	pF
	V <sub>R</sub> =0V, f=1MHz, Between I/O Pins		-	0.25	-	

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FIG. 1-Clamping Voltage vs Peak Pulse Current

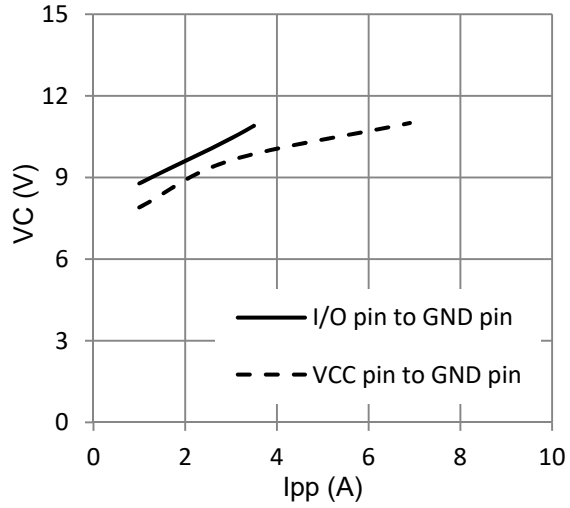
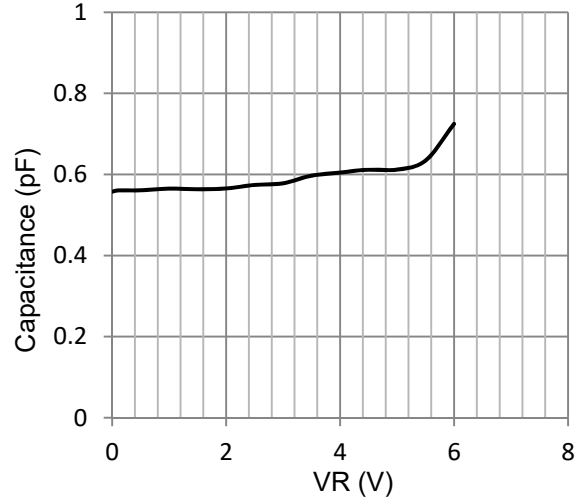


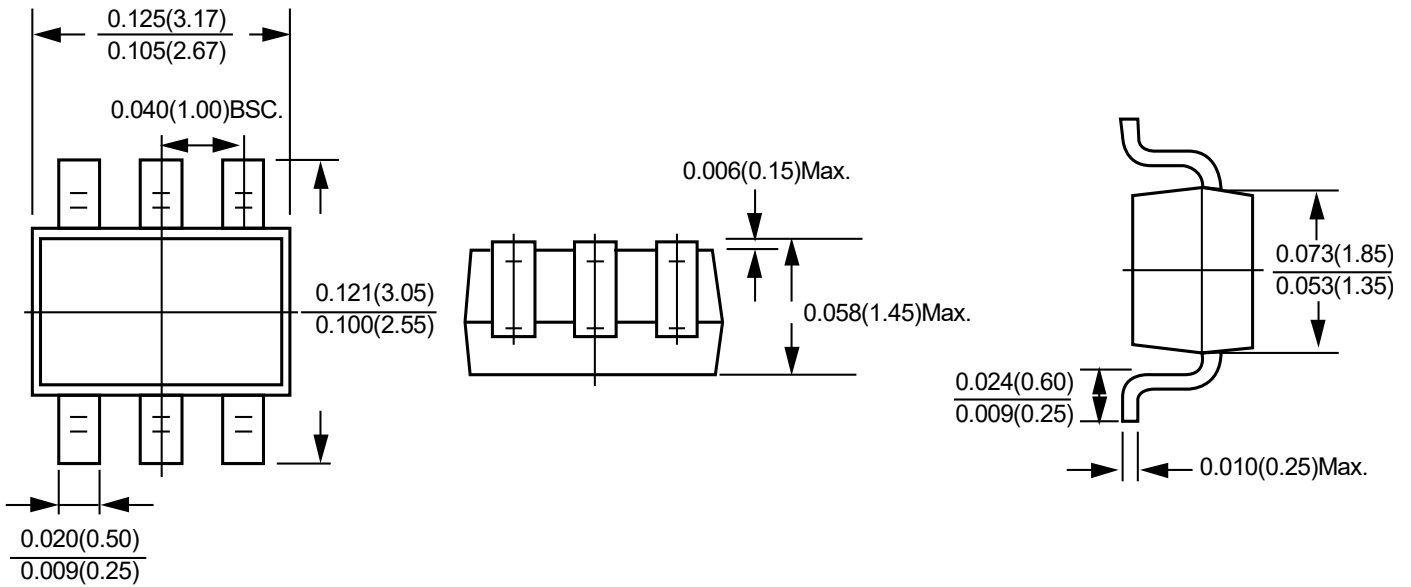
FIG. 2-Junction Capacitance



# PACKAGE OUTLINE & DIMENSIONS

## YST0P6005TM

### Package Outline Dimensions



### SOT-23-6

Dimensions in inches and (millimeters)

### Suggested Pad Layout

Dimension	Outline	SOT-23-6 (mm)
A		2.50
B		0.95
C		1.00
D		1.10

