



# Low Capacitance ESD Protection Diode

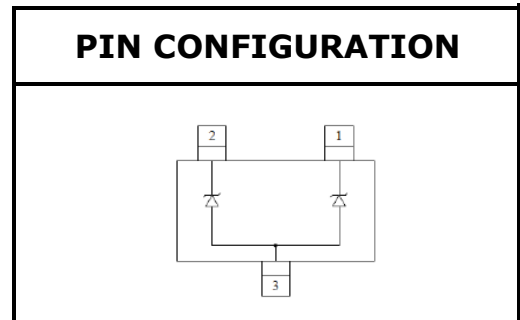


### Features

- Low capacitance : 0.8pF (typ.)
- Reverse standoff voltage : 5V
- IEC61000-4-2 (ESD) : ±20kV (air)
- IEC61000-4-2 (ESD) : ±18kV (contact)
- IEC61000-4-5 (Surge) : 4A (8/20µs)

### Main applications

- Smart Phone
- Laptop
- Wearable
- LCD TV
- USB 3.0/3.1
- USB2.0,UTG
- HDMI 1.3/1.4/2.0
- Audio Jack



### Ordering Information

Device	Qty per Reel	Reel Size
YT0508S	3000	7Inch

### Maximum Ratings (TA=25°C unless otherwise noted)

Parameter	Symbol	Test conditions	Limit	Unit
ESD Rating per IEC61000-4-2	V <sub>ESD</sub>	Contact	±18	kV
		Air	±20	
Peak pulse power	P <sub>PP</sub>	tp = 8/20 µs	70	W
Peak pulse current	I <sub>PP</sub>	tp = 8/20 µs	4	A
Operating junction temperature range	T <sub>J</sub>		-55~+ 125	°C
Storage temperature range	T <sub>STG</sub>		-55~+ 150	°C

### Electrical Characteristics (TA=25°C unless otherwise noted)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Unit
Reverse working voltage	V <sub>RWM</sub>		-	5.0	5.5	V
Breakdown voltage	V <sub>BR</sub>	I <sub>T</sub> =1mA	6.0	-	9.0	V
Reverse leakage current	I <sub>R</sub>	V <sub>RWM</sub> =5V	-	5	30	nA
Surge clamping voltage (tp=8/20us)	V <sub>C</sub>	I <sub>PP</sub> =1A	-	11	-	V
		I <sub>PP</sub> =4A	-	18	-	
TLP dynamic resistance	R <sub>DYN</sub>	Tp=100ns, Tr=1ns	-	0.6	-	Ω
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =0V, f=1MHz	-	0.8	-	pF

# DEVICE CHARACTERISTICS

## YT0508S

FIG. 1-Clamping Voltage (TLP)

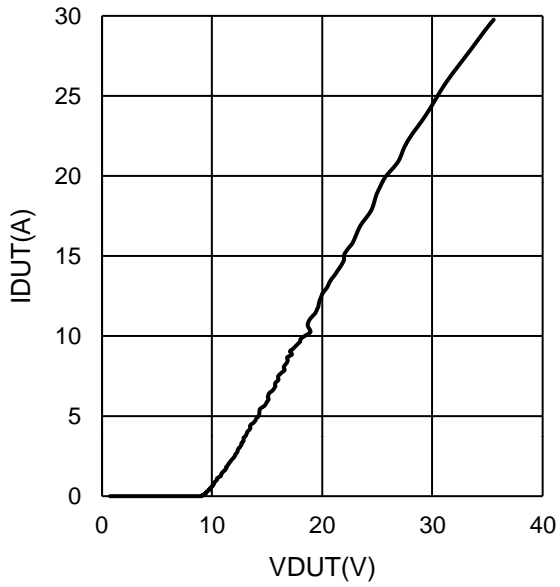
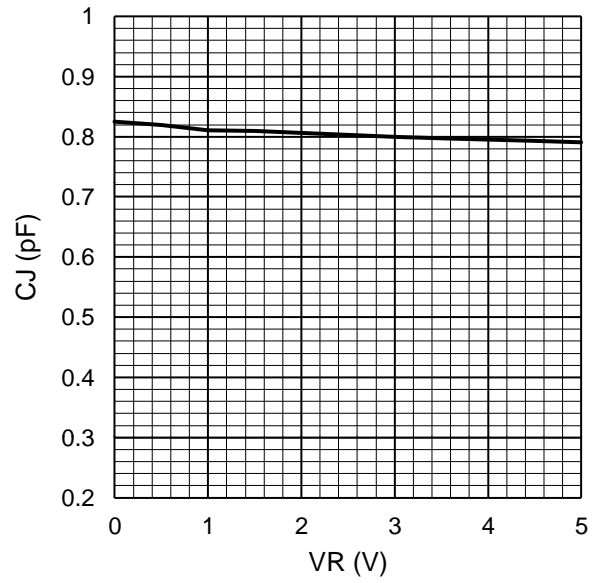


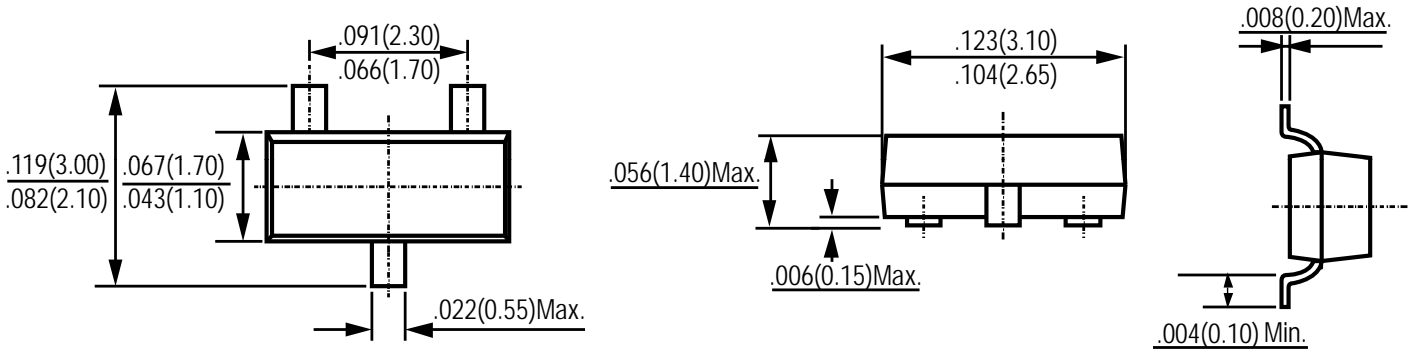
FIG. 2-Junction Capacitance



# PACKAGE OUTLINE & DIMENSIONS

## YT0508S

### Package Outline Dimensions



### SOT-23

Dimensions in inches and (millimeters)

### Suggested Pad Layout

Dimension	Outline	SOT-23 (mm)
A		2.90
C		0.80
D		0.90
E		2.00
F		1.35

