



Low Capacitance TVS Diode Array



APPLICATIONS

- ◆ USB 2.0 High Speed
- ◆ 10/100/1000 Ethernet Ports
- ◆ High-Definition Multimedia Interface (HDMI)
- ◆ Digital Visual Interface (DVI)
- ◆ Monitors and Flat Panel Displays
- ◆ Video Graphics Cards
- ◆ IEEE 1394 Firewire Ports High Speed

IEC COMPATIBILITY

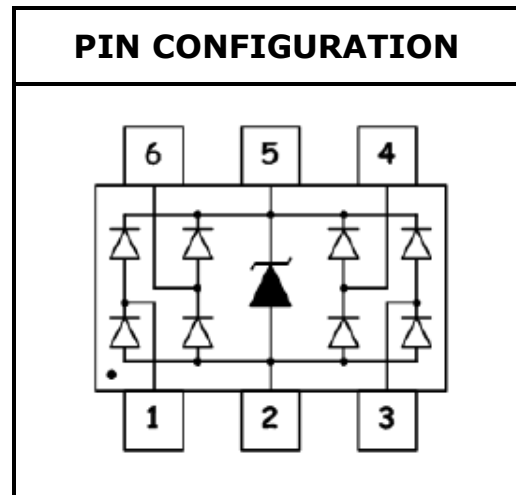
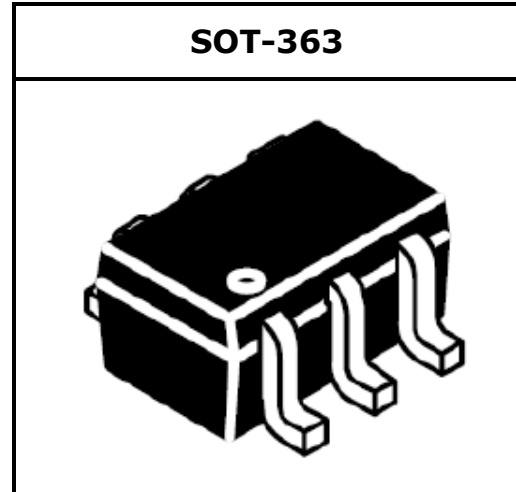
- ◆ IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50 ns)
- ◆ IEC61000-4-5 (Lightning) 3A (8/20 μs)

FEATURES

- ◆ 100 Watts Peak Pulse Power per Line ($t_p=8/20\mu\text{s}$)
- ◆ Protects up to four I/O lines & power line
- ◆ Low capacitance (1.2pF typ.) for high-speed interfaces
- ◆ Working voltages : 5V
- ◆ Ultra-small package requires less than 2.1mm² of PCB area

MECHANICAL CHARACTERISTICS

- ◆ SOT-363 Package
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Weight 6.2 Milligrams (Approximate)
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Reel Size : 7 inch
- ◆ Lead Finish : Lead Free



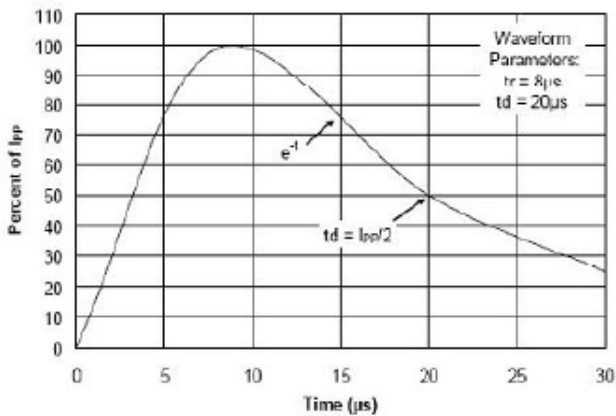
DEVICE CHARACTERISTICS

YSCLAMP0504F

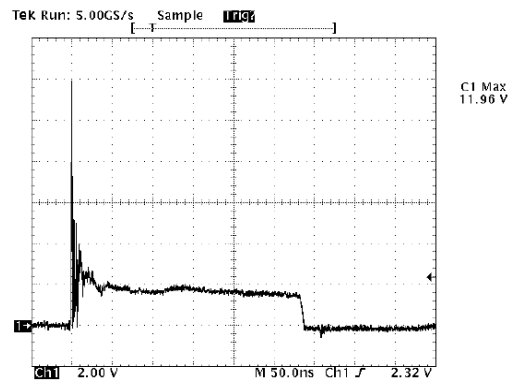
MAXIMUM RATINGS (@ 25°C Unless Otherwise Specified)			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp=8/20µs waveform)	P _{PP}	100	Watts
Lead Soldering Temperature	T _L	260 (10 sec.)	°C
Operating Temperature Range	T _J	-55 ~ 150	°C
Storage Temperature Range	T _{STG}	-55 ~ 150	°C

ELECTRICAL CHARACTERISTICS PER LINE (@ 25°C Unless Otherwise Specified)									
PART NUMBER	DEVICE MARKING	V _{RWM}	V _B	I _T	V _C	V _C		I _R	C _T
		(V) (max.)	(V) (min.)	(mA)	@1A (max.)	(max.)	(@A)	(µA) (max.)	(pF) (typ.)
YSCLAMP0504F	B54	5	6	1	9.8	20	3	1	1.2

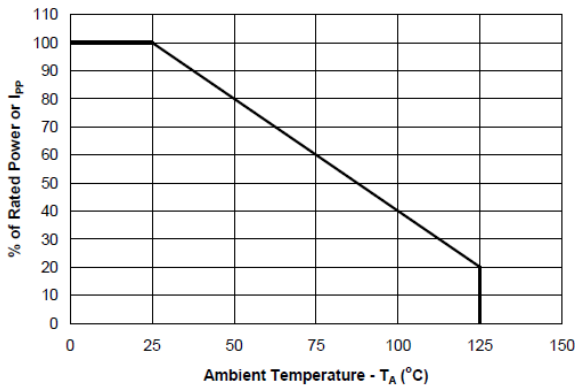
Pulse Waveform



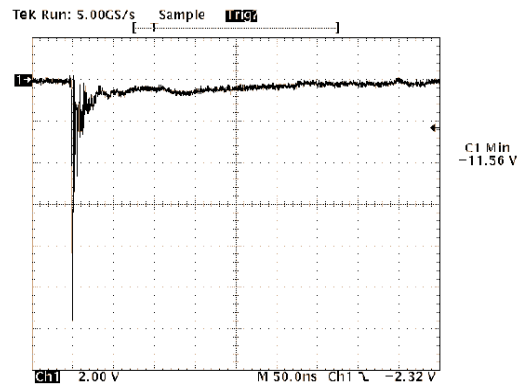
**ESD Clamping
(8kV Contact per IEC 61000-4-2)**



Power Derating Curve

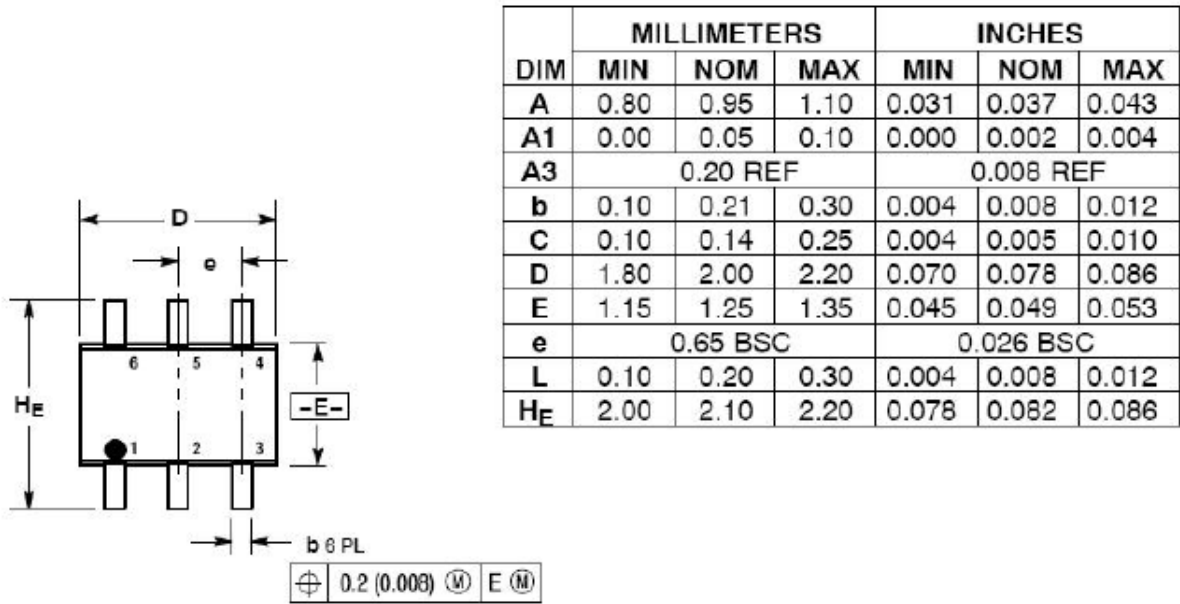


**ESD Clamping
(-8kV Contact per IEC 61000-4-2)**



PACKAGE OUTLINE & DIMENSIONS

YSCLAMP0504F



* SOLDERING FOOTPRINT

