

Low Capacitance TVS Diode Array

APPLICATION

- ◆ USB 2.0
- ◆ Video Graphics Cards
- ◆ DVI
- ◆ IEEE 1394
- ◆ Monitors and Flat Panel Displays
- ◆ 10/100 Ethernet
- ◆ Notebooks



IEC COMPATIBILITY

- ◆ IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ IEC61000-4-5 (Lightning) 5A (8/20µs)

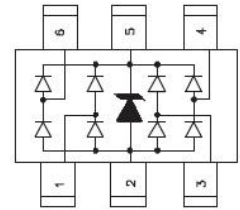
Package: SOT23-6L



Contact: ±8kV Air: ±15kV

FEATURES

- ◆ Small SOT23-6L Packaging
- ◆ Low leakage current of 5µA(Max) at 5V
- ◆ Moisture sensitivity level: level 1



PIN CONFIGURATION

Electrical Characteristics

MAXIMUM RATINGS @ 25°C UNLESS OTHERWISE SPECIFIED

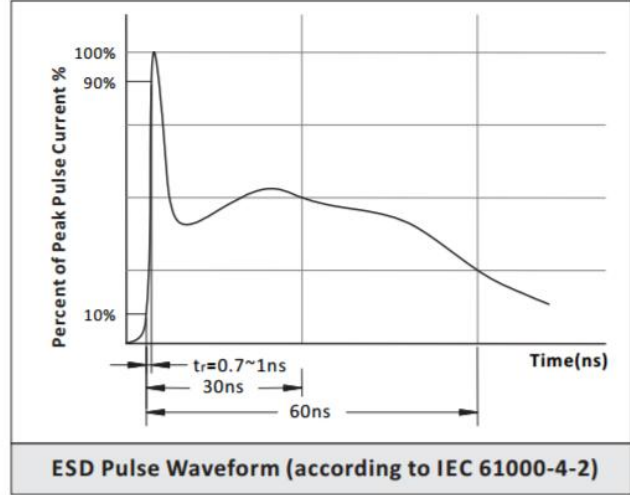
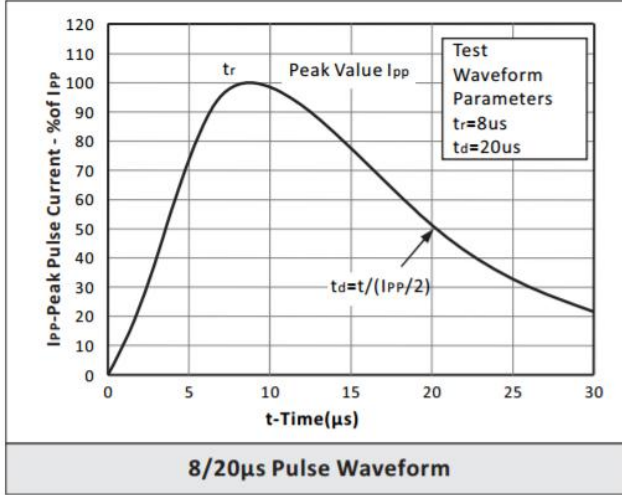
PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (tp=8/20µs waveform)	P _{PP}	80	Watts
Operating Temperature Range	T _J	-55~125	°C
Storage Temperature Range	T _{STG}	-55~150	°C

Electrical Characteristics

Part Number	VRWM	VBR	IR (max)	Co Max value	Vc @1A Max	Vc		Ppp 8/20us	Package
	V	V	(µA)	pF	V	V _{max}	@A	W	
HAH0524S2	5	6	5	1.0	12	15	4	80	SOT23-6L

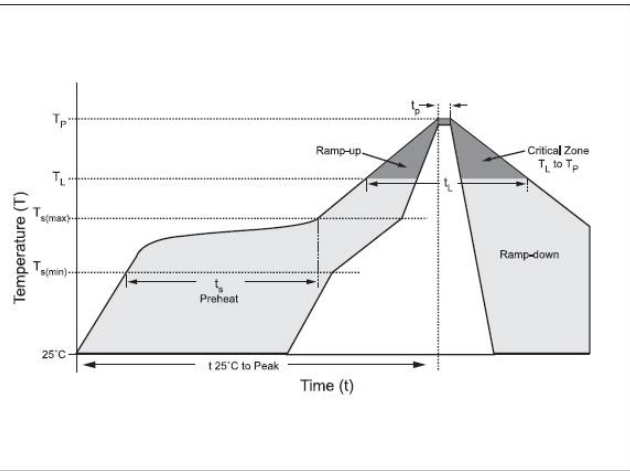
Low Capacitance TVS Diode Array

CHARACTERISTIC CURVES



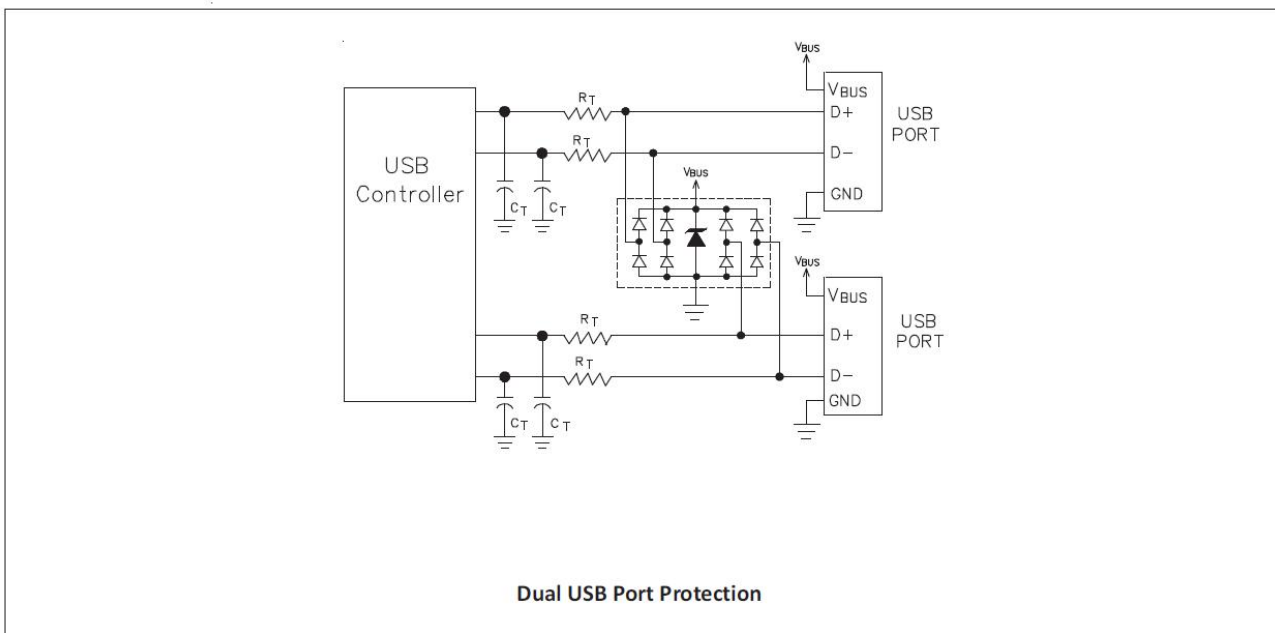
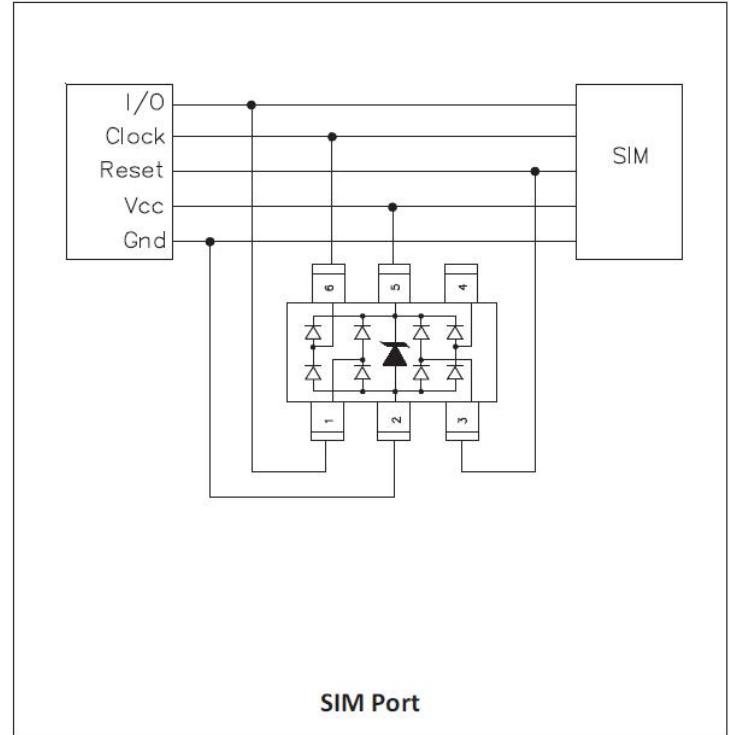
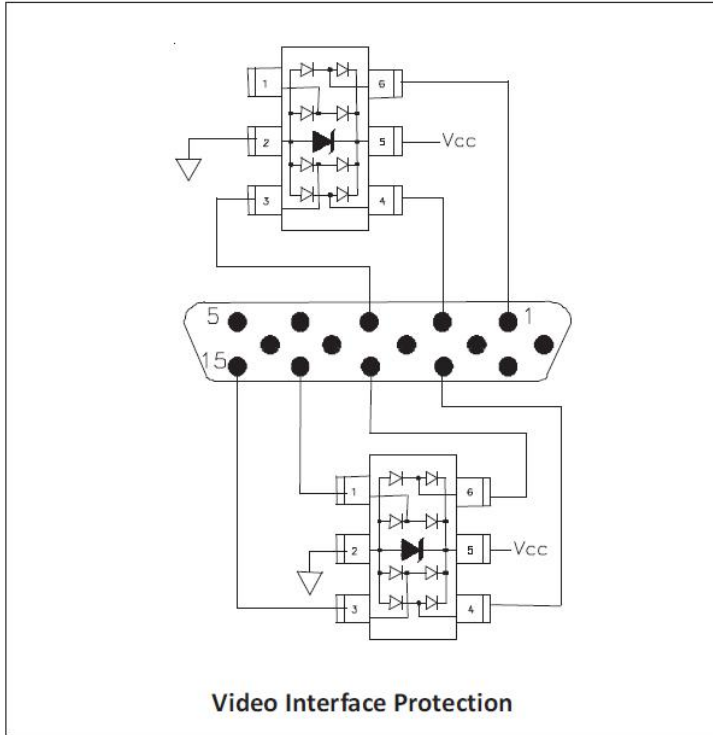
REFLOW PROFILE

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Min (Ts(min))	150°C
	Temperature Max (Ts(max))	200°C
	Time (min to max) (ts)	60 – 180 secs
Average ramp up rate (Liquidus Temp (TL) to peak)		3°C/second max
Ts(max) to TL - Ramp-up Rate		3°C/second max
Reflow	Temperature (TL) (Liquidus)	217°C
	Time (min to max) (tl)	60 – 150 seconds
Peak Temperature (Tp)		260°C
Time within 5°C of actual peak Temperature (tp)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (Tp)		8 minutes Max.
Do not exceed		260°C



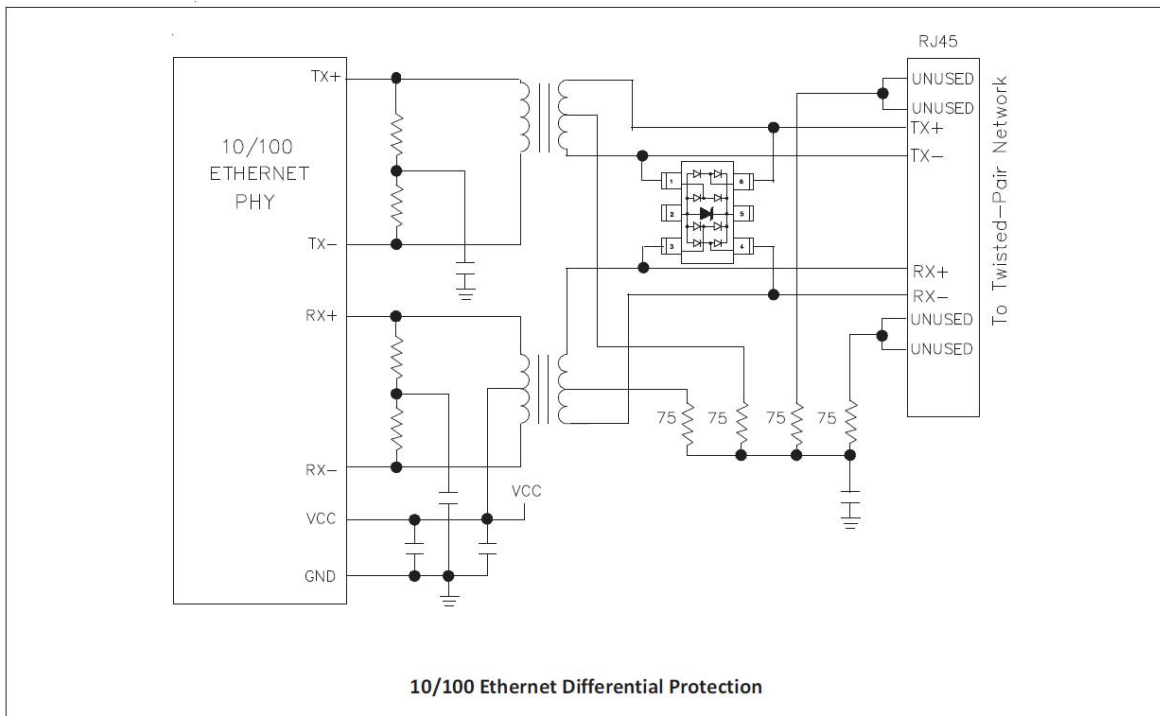
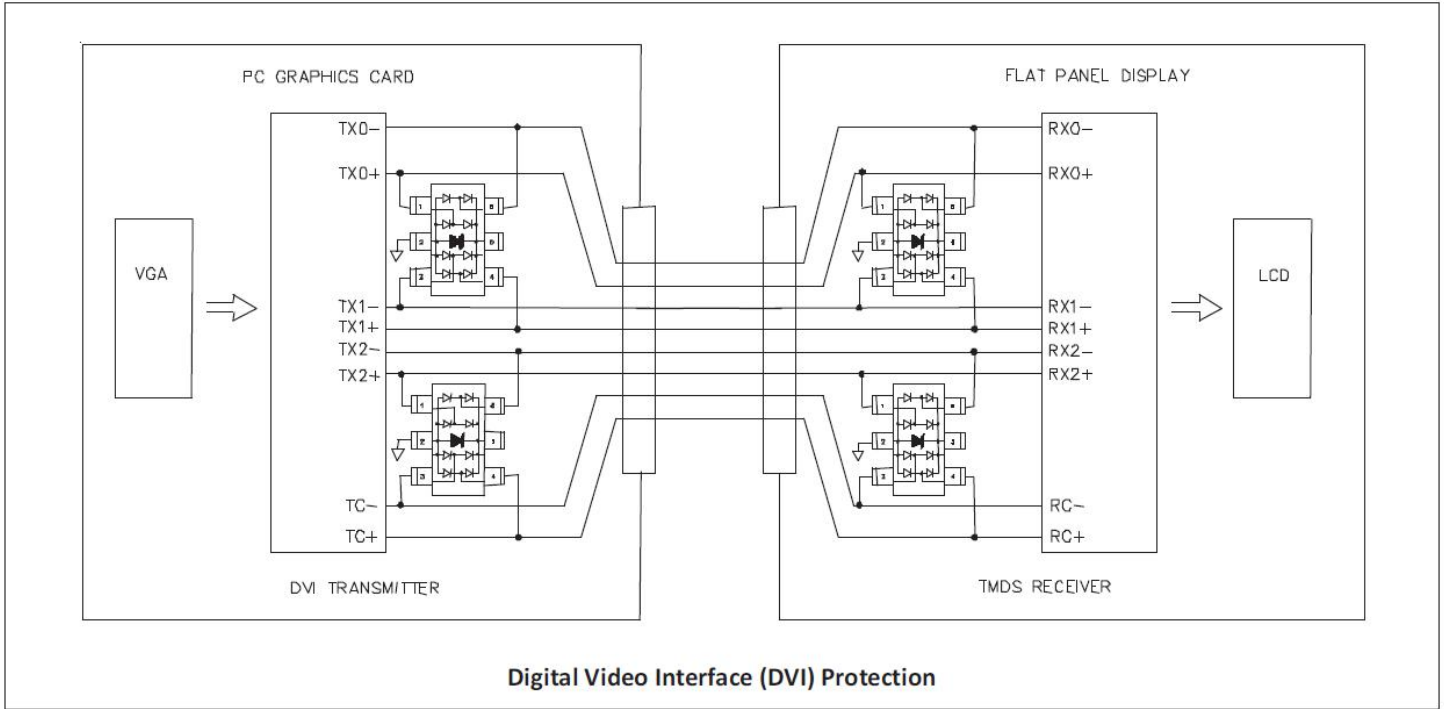
Low Capacitance TVS Diode Array

TYPICAL APPLICATIONS



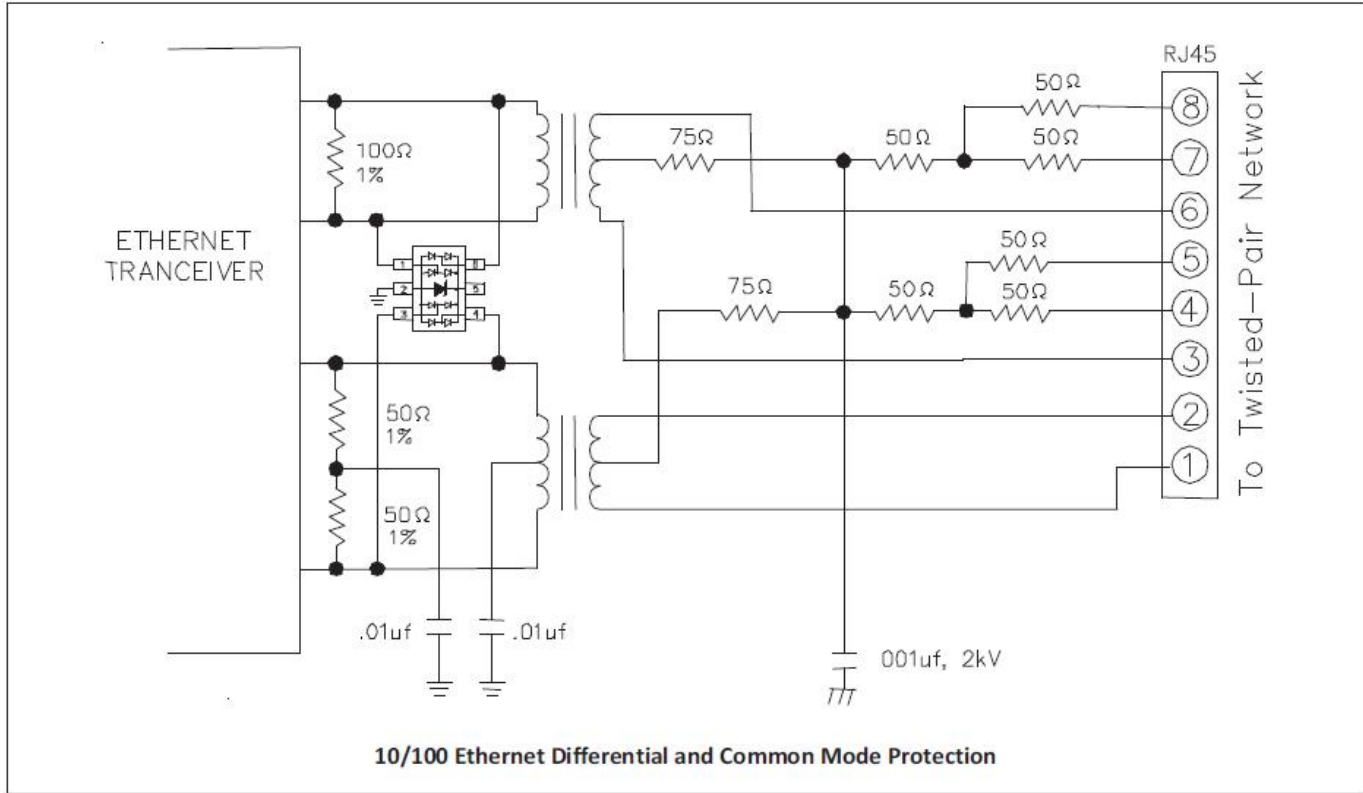
Low Capacitance TVS Diode Array

TYPICAL APPLICATIONS



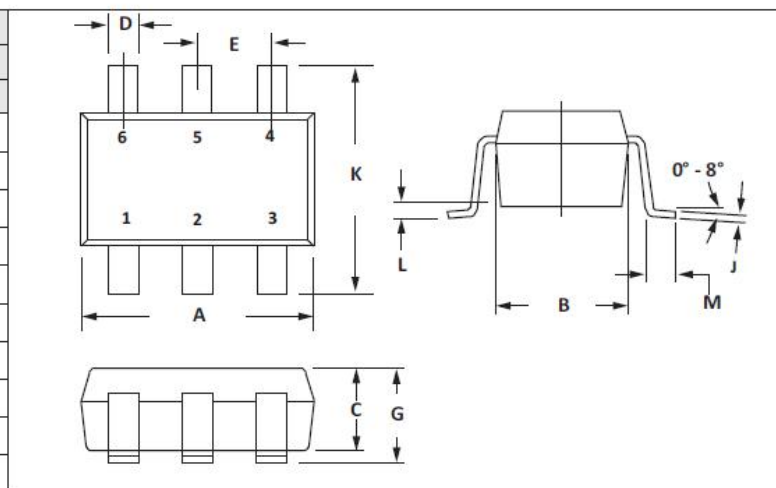
Low Capacitance TVS Diode Array

TYPICAL APPLICATIONS



SOT-23-6 PACKAGE INFORMATION

OUTLINE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.80	3.05	0.110	0.120
B	1.50	1.75	0.059	0.070
C	0.90	1.30	0.036	0.051
D	0.30	0.40	0.012	0.016
E	0.85	1.05	0.033	0.040
G	0.90	1.45	0.036	0.057
J	0.09	0.20	0.003	0.008
K	2.60	3.00	0.102	0.118
L	0.0	0.15	0.0	0.006
M	0.30	0.60	0.012	0.024



Low Capacitance TVS Diode Array

RECOMMENDED PAD LAYOUT DIMENSIONS

PAD LAYOUT DIMENSIONS		
DIM	MILLIMETERS	INCHES
	NOMINAL	NOMINAL
A	0.70	0.028
B	1.90	0.074
C	0.95	0.037
D	2.40	0.094
E	1.00	0.039

Ordering Information

Part Number	Qty per Reel	Reel Size	Package
HAH0524S2	3000pcs	7inch	SOT-23-6L