

# WHTA5V01P2C

## Product Datasheet

### 1.Description

The WHTA5V01P2C series transient voltage suppressor arrays, designed to protect applications such as computers, printers, business machines, communication system and other applications. This series is rated at 60 Watts for an 8/20 $\mu$ s waveshape. This series offers low leakage current in a SOT-363 package.



### 2.Features

- IEC 61000-4-2 (ESD)
  - $\pm 20$ kV Contact Discharge
  - $\pm 20$ kV Air Discharge
- 120W Peak pulse Power (8/20 $\mu$ s)
- IEC 61000-4-4 EFT Protection
  - 40A (5/50ns)
- Halogen free and RoHS compliant
- Protecting four unidirectional lines
- Low clamping voltage
- Low leakage current

### 3.Mechanical Data

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants
- Notebooks / Desktops / Servers
- Portable Instrumentation
- Peripherals & Pagers

### 4.Ordering Information

Part Number	Package	Marking	Material	Packing	Quantity per reel	Flammability Rating	Reel Size
WHTA5V01P2C	SOT-363	.54SH	Halogen free	Tape & Reel	3,000 PCS	UL 94V-0	7 inches

Table-1 Ordering information

# WHTA5V01P2C

## Product Datasheet

### 5.Pin Configuration and Functions

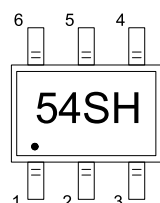
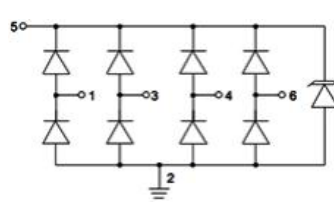
Pin	Name	Description	Outline	Circuit Diagram
1	IO1	Connect to I/O		
2	GND	Connect to GND		
3	IO2	Connect to I/O		
4	IO3	Connect to I/O		
5	Vcc	Connect to Vcc		
6	IO4	Connect to I/O		

Table-2 Pin configuration

### 6.Absolute Maximum rating

Over operating free-air temperature range (unless otherwise noted)

Parameters	Symbol	Min.	Max.	Unit
Peak pulse power (tp=8/20us)@25°C	P <sub>pk</sub>	-	120	W
Peak pulse current (tp=8/20us)@25°C	I <sub>PP</sub>		8	A
ESD (IEC61000-4-2 air discharge) @25°C	V <sub>ESD</sub>	-	±20	kV
ESD (IEC61000-4-2 contact discharge) @25°C	V <sub>ESD</sub>	-	±20	kV
Junction temperature	T <sub>J</sub>	-	125	°C
Operating temperature	T <sub>OP</sub>	-40	125	°C
Storage temperature	T <sub>STG</sub>	-55	150	°C
Lead temperature	T <sub>L</sub>	-	260	°C

Table-3 Absolute Maximum rating

# WHTA5V01P2C

## Product Datasheet

### 7. Electrical Characteristics

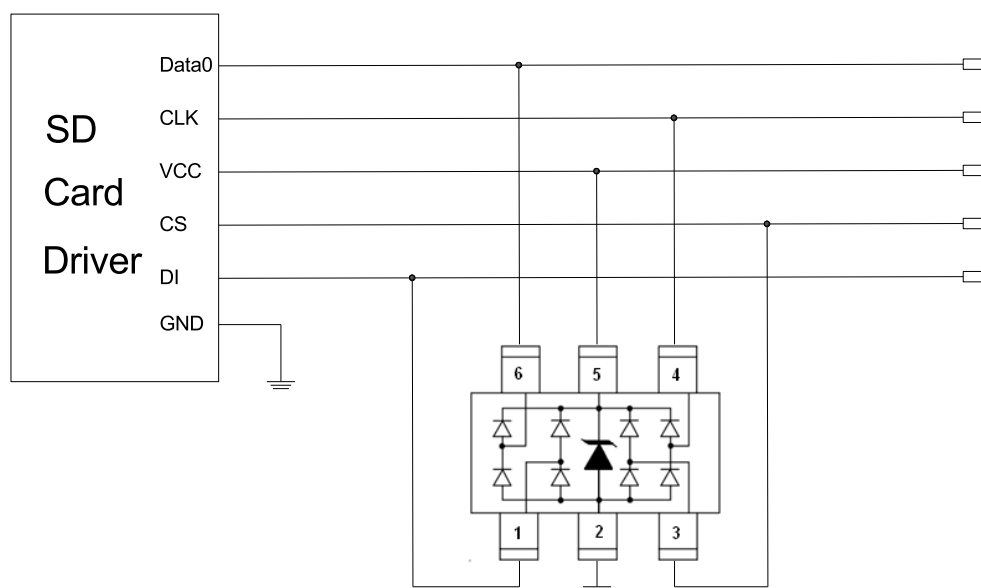
At TA = 25°C unless otherwise noted

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	$V_{RWM}$				5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	6			V
Reverse Leakage Current	$I_R$	$V_{RWM}=5V$			1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP}=1A$ ; $t_p=8/20\mu s$		10		V
Clamping Voltage	$V_C$	$I_{PP}=8A$ ; $t_p=8/20\mu s$		15		V
Junction Capacitance	$C_J$	I/O to GND; $V_R=0V$ ; $f=1MHz$		1.2		pF
		Between I/O; $V_R=0V$ ; $f=1MHz$		0.6		pF

Table-4 Electrical Characteristics

### 8. Typical Application

Typical Interface Application



# WHTA5V01P2C

## Product Datasheet

### 9. Ratings and Characteristic Curves (TA = 25℃ unless otherwise noted)

Figure 1. Pulse rating curve

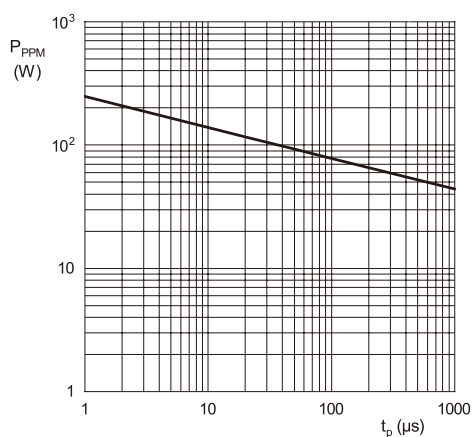


Figure 2 Peak pulse power derating curve

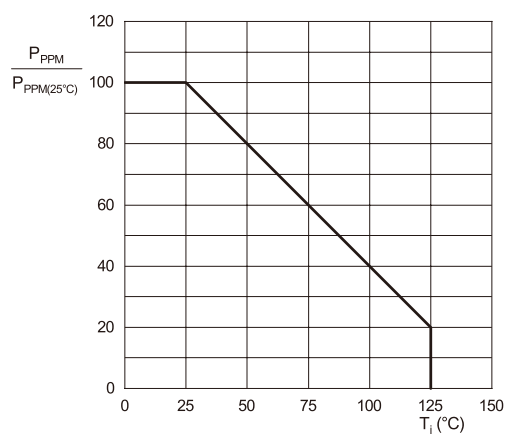


Figure 3 Pulse waveform

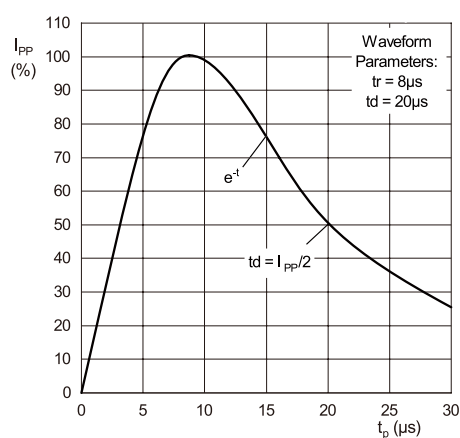
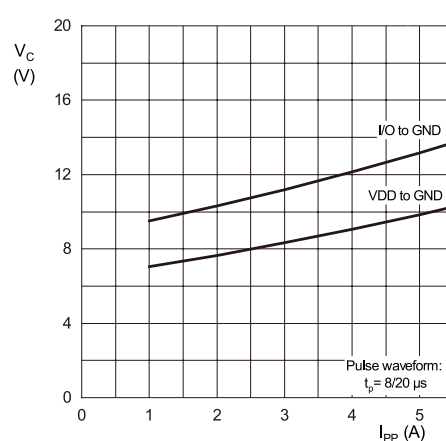


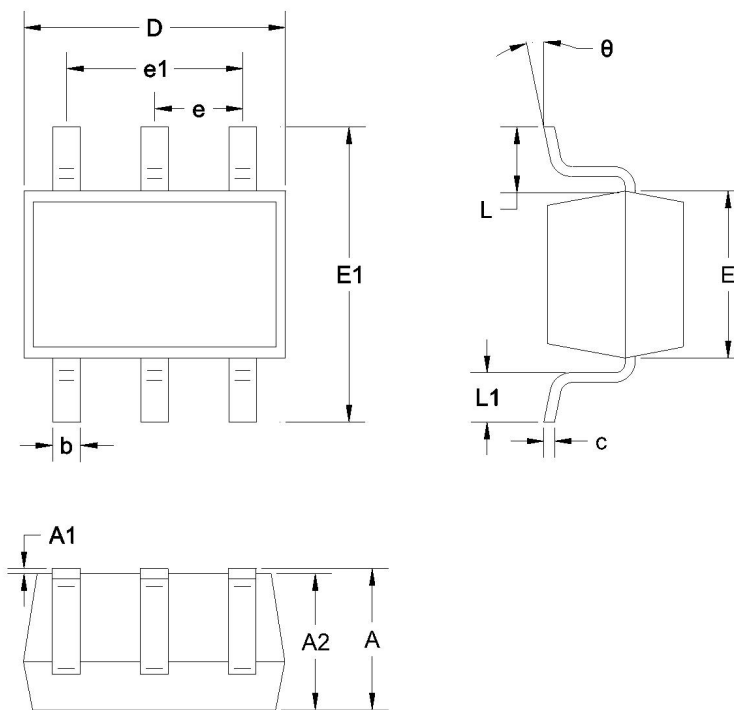
Figure 4 Clamping voltage vs Peak pulse current



# WHTA5V01P2C

## Product Datasheet

### 10.Dimension

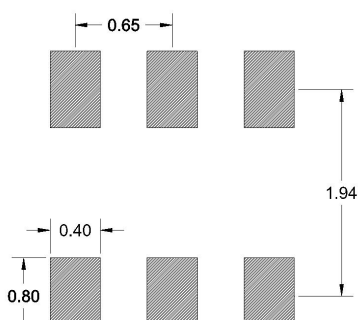


Unit: mm

Symbol		A	A1	A2	b	c	D	$\theta$
Spec	Min	0.900	0.000	0.900	0.150	0.080	2.000	0°
	Max	1.100	0.100	1.000	0.350	0.150	2.200	8°
Symbol		E	E1	e	e1	L	L1	-
Spec	Min	1.150	2.150	0.650	1.200	0.525	0.2600	-
	Max	1.350	2.450	REF	1.400	REF	0.4600	-

Table-5 Product dimensions in millimeter

### 11.Recommended Land Pattern



Note:

1. Controlling dimension: in millimeters
2. General tolerance:  $\pm 0.05\text{mm}$
3. The pad layout is for reference only