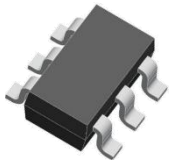
1. Features

- Ultra-Low capacitance:0.8pF(max.)
- Reverse stand-off voltage:5V
- Protects four I/O line
- IEC 61000-4-2 (ESD Air): ±20KV
  IEC 61000-4-2 (ESD Contact): ±15KV

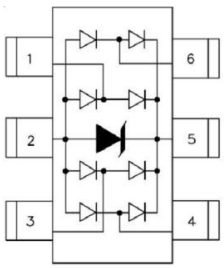
2. Pin Description



3. Applications

- USB 2.0
- HDMI 1.3/1.4, Display Port 1.3, eSATA
- Unified Display Interface (UDI)
- Digital Visual Interface (DVI)
- High speed serial interfaces

4. Schematic Diagram



Top View

5. Order Information

Type	Package	Size (mm)	Delivery Form	Delivery Quantity
SCS7242AT	SOT23-6L	2.92x1.60x1.20	7" T&R	3,000

6. Limiting Values(T_A = 25 °C, unless otherwise specified)

Symbol	Parameter	Conditions	Min	Max	Unit
V_{ESD}	Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge	-	±15	kV
		IEC 61000-4-2; Air Discharge	-	±20	kV
P_{PP}	Peak Pulse Power	t_P = 8/20 μs	-	100	W
I_{PPM}	Rated Peak Pulse Current	t_P = 8/20 μs	-	5	A
T_A	Ambient Temperature Range	-	-55	125	℃
T_{stg}	Storage Temperature Range	-	-55	150	℃

7. Electrical Characteristics(T_A = 25 °C unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
V_{RWM}	Reverse Working Voltage	T_A= 25 °C	-	-	5	V
V_{BR}	Breakdown Voltage	I_R = 1 mA; T_A= 25 °C	6	-	-	V
I_R	Reverse Leakage Current	V_{RWM} = 5V; T_A = 25 °C	-	-	1	μA
V_C	Clamping Voltage	I_{PP}=1A,t_P=8/20μs, Any I/O to GND , Positive	-	-	15	V
		I_{PP}=5A,t_P=8/20μs, Any I/O to GND , Positive	-	-	20	V
C_L	Junction Capacitance	V_R = 0V, f = 1 MHz,I/O to I/O	-	0.3	0.4	pF
		V_R = 0V, f = 1 MHz, I/O to GND	-	-	0.8	pF

8. Typical Characteristics

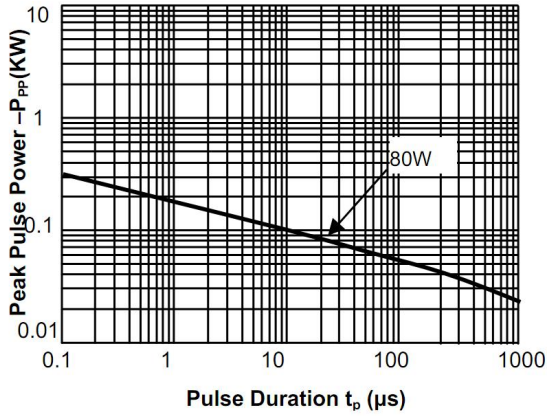


Fig.1 Peak Pulse Power Rating Curve

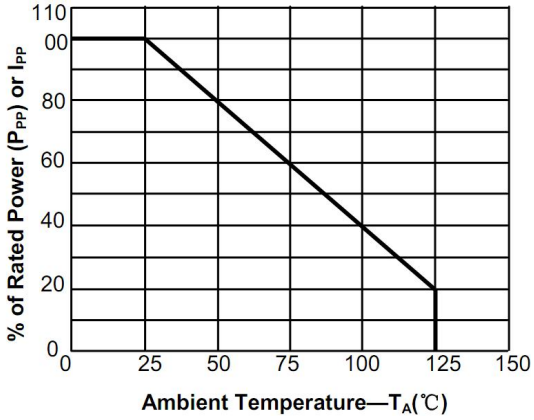


Fig.2 Pulse Derating Curve

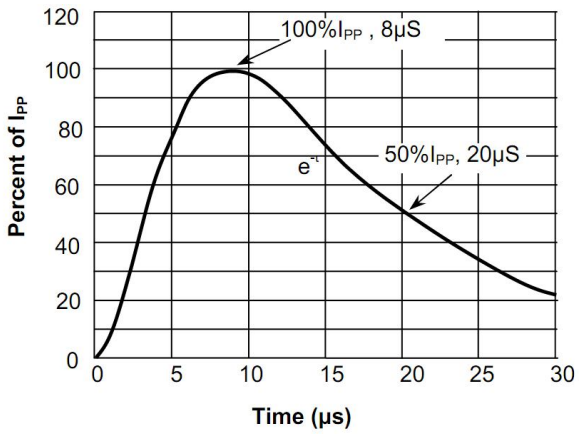


Fig.3 Pulse Waveform-8/20μs

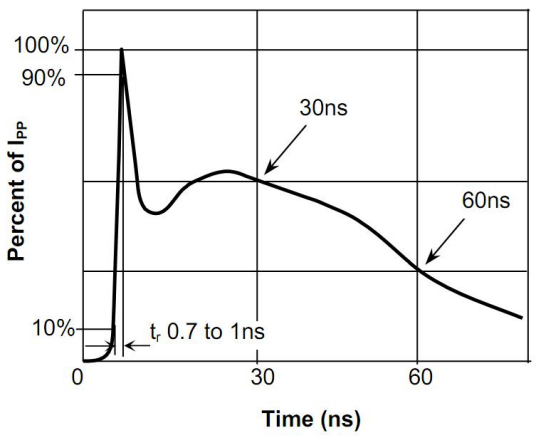
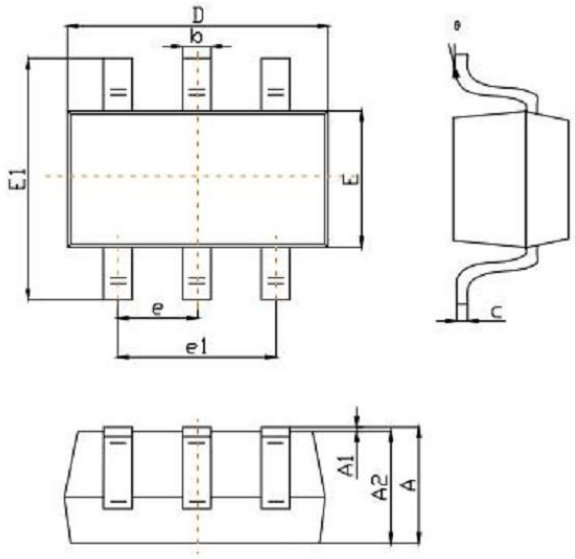


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)

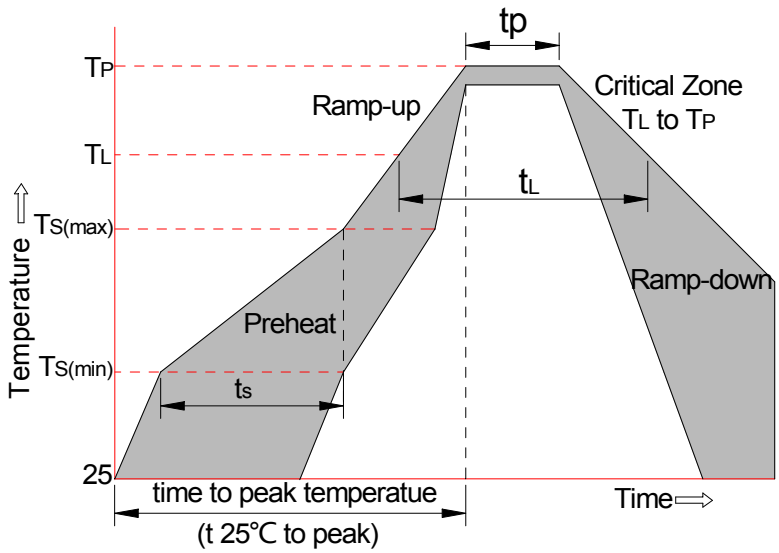
9. Package Dimension

SOT23-6 Package Outline



Symbol	Dimensions in millimeters	
	Min	Max
A	0.950	1.450
A1	0.000	0.150
A2	0.900	1.300
b	0.300	0.500
c	0.080	0.250
D	2.670	3.170
E	1.350	1.850
E1	2.550	3.050
e	0.950（BSC）	
e1	1.700	2.100
L	0.300	0.600
θ	0	8

10. Soldering Parameters



Reflow Condition		Pb-Free Assembly
Pre-heat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217°C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
xTime 25°C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260°C