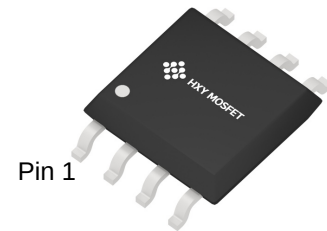




Discription

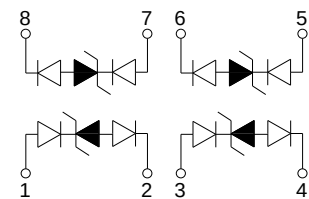
The STSP84028U120 protects sensitive semiconductor components from damage or upset due to electrostatic discharge (ESD) and other voltage induced transient events. Excellent clamping capability, low leakage, low capacitance, and fast response time provide best in class protection on designs that are exposed to ESD.



SOP-8

Features

- 550W peak pulse power (8/20 μ s)
- Protects two line pairs (four lines)
- Ultra low leakage: nA level
- Low operating voltage: 2.8V
- Very low capacitance: 1pF
- Ultra low clamping voltage
- JEDEC SOP-8 package
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ± 30 kV
 - Contact discharge: ± 30 kV
 - IEC61000-4-5 (Lightning) 30A (8/20 μ s)
- RoHS Compliant



Circuit Diagram

Ordering Information

Product ID	Pack	Qty(PCS)
STSP84028U120	SOP-8	3000

Absolute Ratings(Tamb = 25°C)

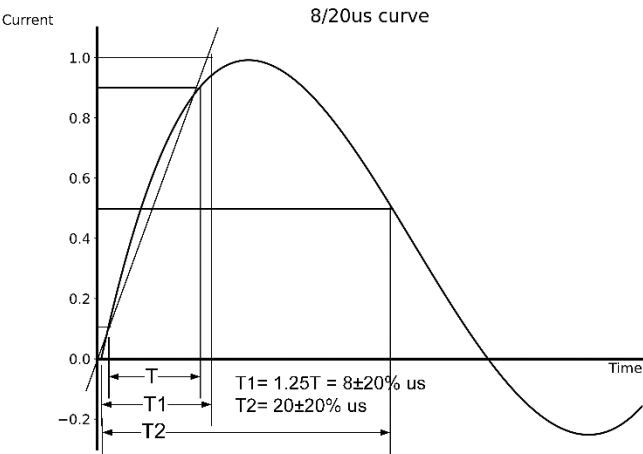
Symbol	Parameter	Value	Units
P _{PP}	Peak Pulse Power (t _p = 8/20μ s)	550	W
T _L	Maximum lead temperature for soldering during 10s	260	°C
T _{stg}	Storage Temperature Range	-55 to +150	°C
T _{op}	Operating Temperature Range	-55 to +150	°C
T _j	Maximum junction temperature	150	°C
	IEC61000-4-2 (ESD)	air discharge contact discharge	± 30 ± 30
	IEC61000-4-4 (EFT)	40	A



Electrical Characteristics Ratings at 25°C

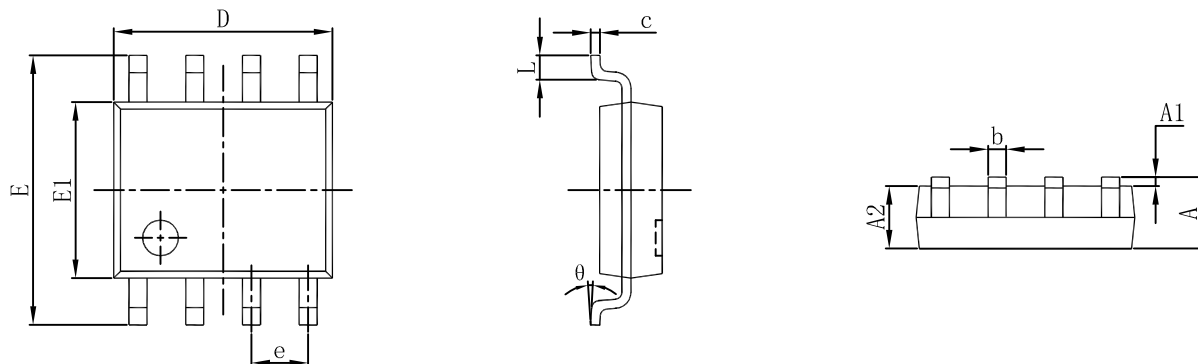
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			2.8	V	
Breakdown Voltage	VBR	3.0			V	It = 2μA
	VSB	3.0			V	ISB= 50mA
Reverse Leakage Current	IR			1	μA	VRWM = 2.8V
Clamping Voltage	VC		6		V	Ipp = 1A (8 x 20μs pulse)
Clamping Voltage	VC		16		V	Ipp = 30A (8 x 20μs pulse)
Junction Capacitance	CJ		1		pF	VR = 0V, f = 1MHz

Typical Characteristics

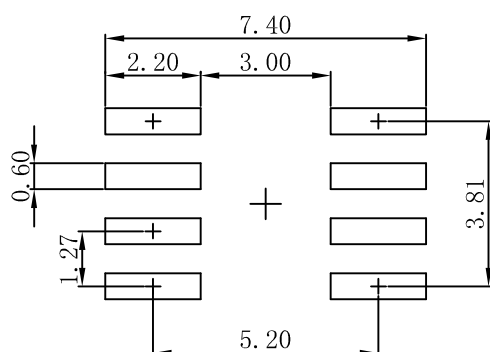




SOP-8 Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.007	0.010
D	4.800	5.000	0.189	0.197
e	1.270 (BSC)		0.050 (BSC)	
E	5.800	6.200	0.228	0.244
E1	3.800	4.000	0.150	0.157
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°



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



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