



Features

- Small size
- Stable breakdown voltage
- High bandwidth
- RoHS compliant*

Applications

- Telecom
- Datacom
- Industrial electronics

G5000 and G6000 Series Overtoltage Protectors

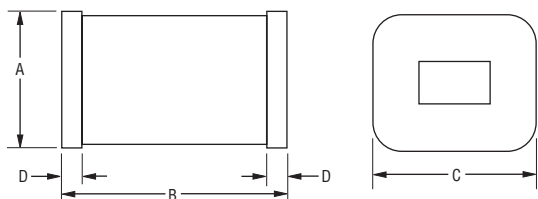
Electrical Characteristics

Symbol	Parameter	Test conditions	Value	Unit
V _{BR}	Maximum end-of-life impulse sparkover voltage	G5000AS 10/1000 μs, 1000 V, 100 A 2/10 μs, 2500 V, 500 A 2/10 μs, 5000 V, 500 A 10/700 μs, 6000 V, 240 A	1600	V
		G5200AS 10/1000 μs, 1000 V, 100 A 2/10 μs, 5000 V, 500 A 10/700 μs, 6000 V, 240 A	850	
		G5500AS 2/10 μs, 800 V, 100 A 2/10 μs, 1500 V, 100 A	650	
		G6000AS 2/10 μs, 6000 V, 500 A	650	
V _{DC}	Minimum end-of-life DC breakover voltage	G5000AS R=1 MΩ, 500 V/s	900	V
		G5200AS R=51k Ω, 500 V/s	400	
		G5500AS R=51k Ω, 500 V/s	200	
		G6000AS R=51k Ω, 500 V/s	200	
I _{surge}	Maximum surge rating with 8/20 μs waveform	-	2	kA
C _{max}	Maximum capacitance (1 MHz)	-	0.3	pF
R _{ins}	Minimum insulation resistance	-	10	MΩ

Thermal Conditions

Symbol	Parameter	Min.	Unit
T _{op}	Operating temperature range	-40 to +85	°C
T _{stg}	Storage temperature range	-40 to +85	°C

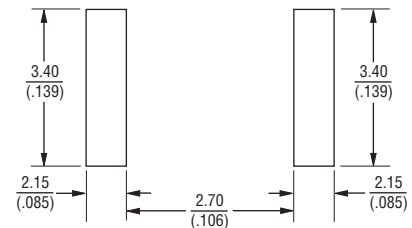
Product Dimensions



Dim.	Min.	Max.
A	2.40 (.094)	3.00 (.118)
B	4.20 (.165)	4.80 (.189)
C	2.90 (.114)	3.50 (.138)
D	0.60 (.024)	0.70 (.028)

Packaging: 3000 pieces per reel DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

Recommended Pad Layout



How to Order

Form Factor _____ **G 5200 AS**

G = Gas Discharge Tube

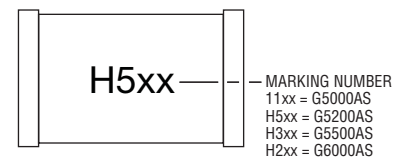
Series _____

5000
5200
5500
6000

Rating Form Factor _____

AS = 2 kA Rating, Surface Mount

Typical Part Marking

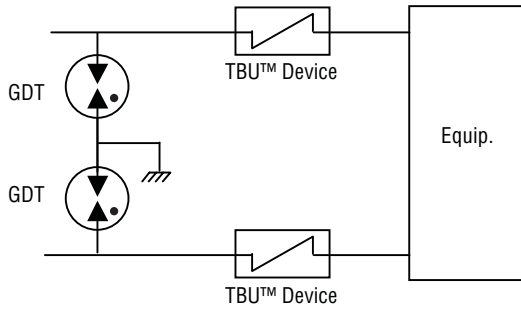


*RoHS Directive 2002/95/EC Jan 27 2003 including Annex.
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications

G5000 and G6000 Series Overvoltage Protectors

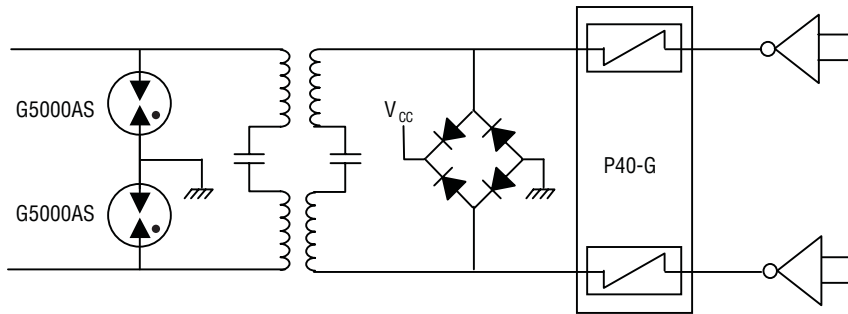
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Typical Applications

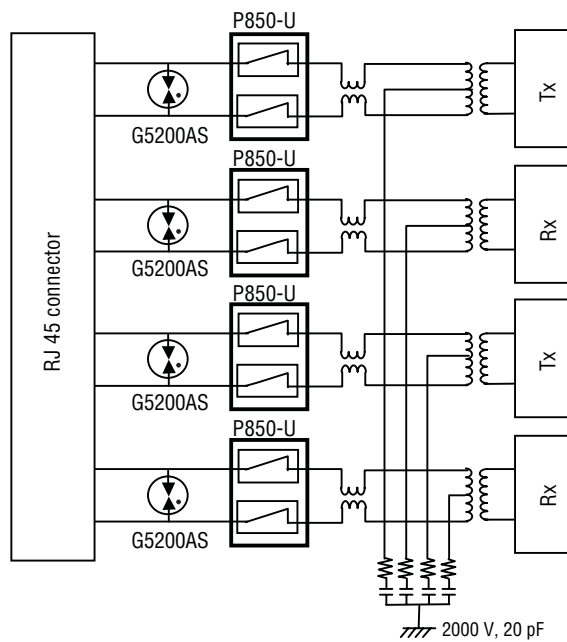


TBU	GDT
C650-xxx	G5500AS
C650-xxx	G6000AS
C850-xxx	G5200AS

Telecom, Industrial and Other General Electronics



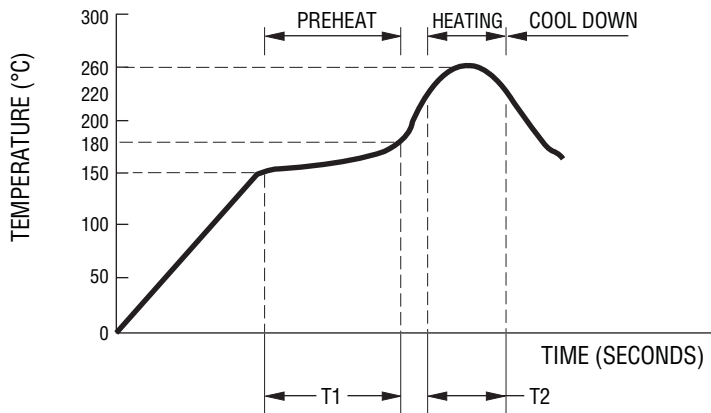
ADSL, VDSL and VDSL2



Ethernet

Standard Soldering Condition

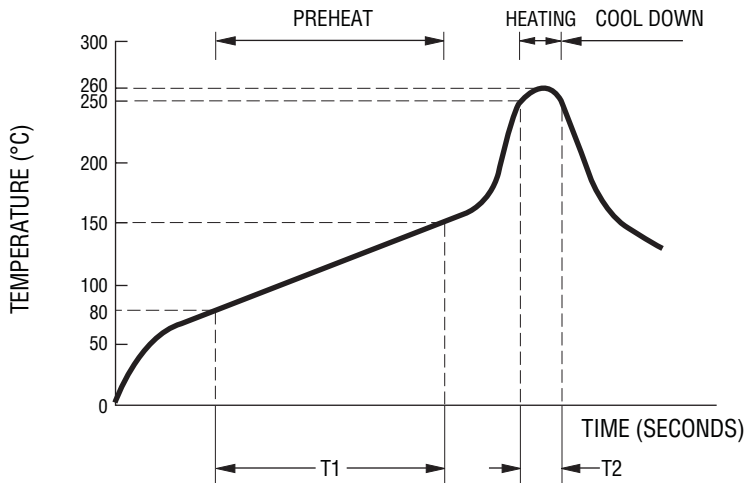
REFLOW SOLDERING SYSTEM



Item	Condition	
Preheat	T ₁ : 150 - 180 °C	60-90 sec.
Heating	T ₂ : 220 - 260 °C	30-60 sec.
Peak Temperature	260 °C	
Cool Down	Cooling after soldering should be as gradual as possible.	

Flow Soldering System

FLOW SOLDERING TEMPERATURE PROFILE



Item	Condition	
Preheat	T ₁ : 80 - 150 °C	120-180 sec.
Heating	T ₂ : 250 - 260 °C	10 ± 1 sec.
Peak Temperature	260 °C	
Cool Down	Cooling after soldering should be as gradual as possible.	

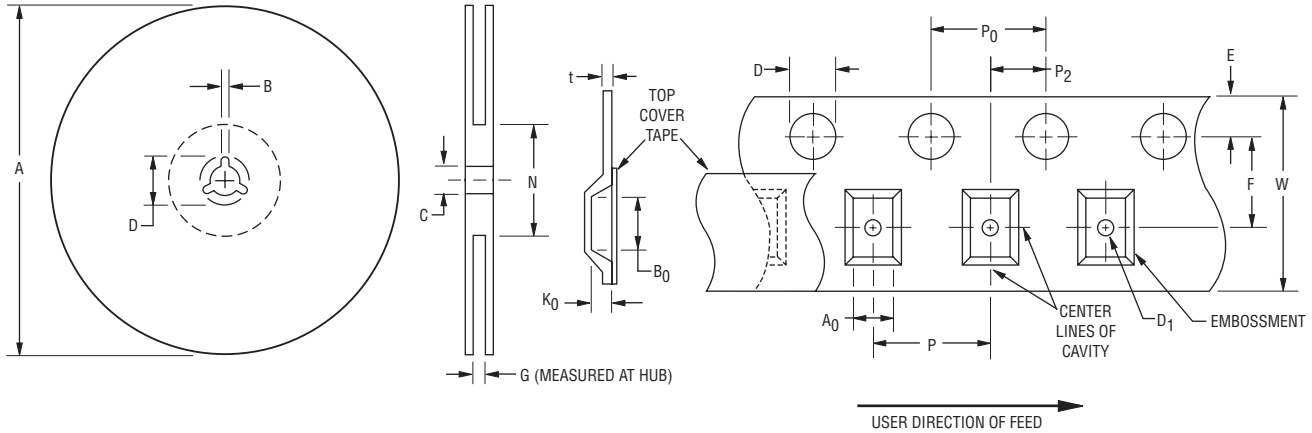
Soldering Iron

Temperature: 350 °C ±5 °C
 Time: 5 ± 1 sec.

G5000 and G6000 Series Overvoltage Protectors

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Packaging Specifications (per EIA468-B)



A		B		C		D		G	N
Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Ref.	Ref.
328	332	1.5	2.5	12.5	13.5	20.2	21.8	13.5	80
(12.913)	(13.071)	(.059)	(.098)	(.492)	(.531)	(.795)	(.858)	(.531)	(3.150)

A ₀		B ₀		D		D ₁		E		F	
Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	max.
3.4	3.8	4.7	5.1	1.5	1.6	1.5	1.8	1.65	1.85	5.45	5.55
(.134)	(.150)	(.185)	(.201)	(.059)	(.063)	(.059)	(.071)	(.065)	(.073)	(.215)	(.219)
K ₀		P		P ₀		P ₂		t		W	
Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.6	3.0	7.9	8.1	3.9	4.1	1.9	2.1	0.2	0.4	11.7	12.3
(.102)	(.118)	(.311)	(.319)	(.159)	(.161)	(.075)	(.083)	(.008)	(.016)	(.461)	(.484)

DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$



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