



Features

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

Applications

- Telecom
- Datacom
- Industrial electronics

G5000 and G6000 Series Overvoltage Protectors

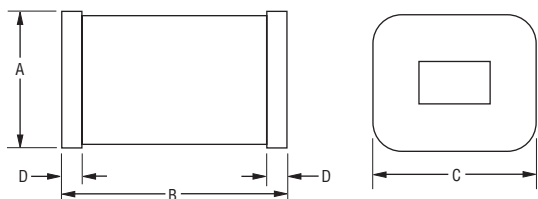
Electrical Characteristics

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

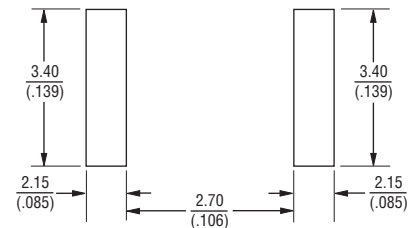
Product Dimensions



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

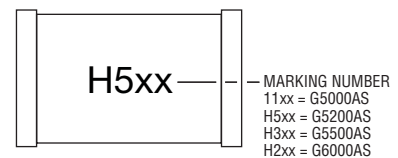
Series _____

5000
5200
5500
6000

Rating Form Factor _____

AS = 2 kA Rating, Surface Mount

Typical Part Marking

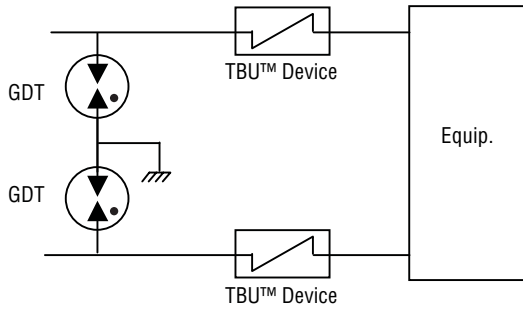


*RoHS Directive 2002/95/EC Jan 27 2003 including Annex.
 Specifications are subject to change without notice.
 Customers should verify actual device performance in their specific applications

G5000 and G6000 Series Overvoltage Protectors

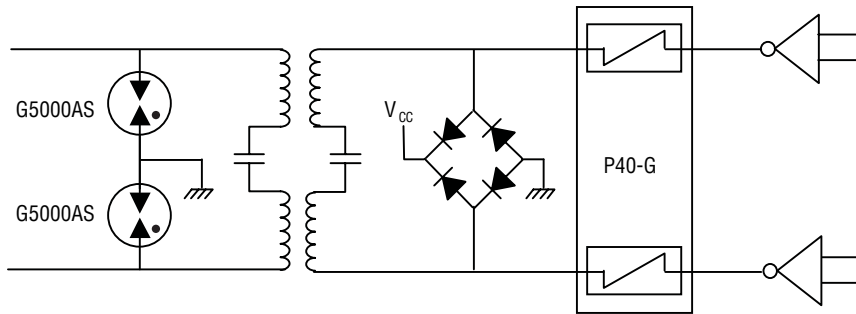
BOURNS®

Typical Applications

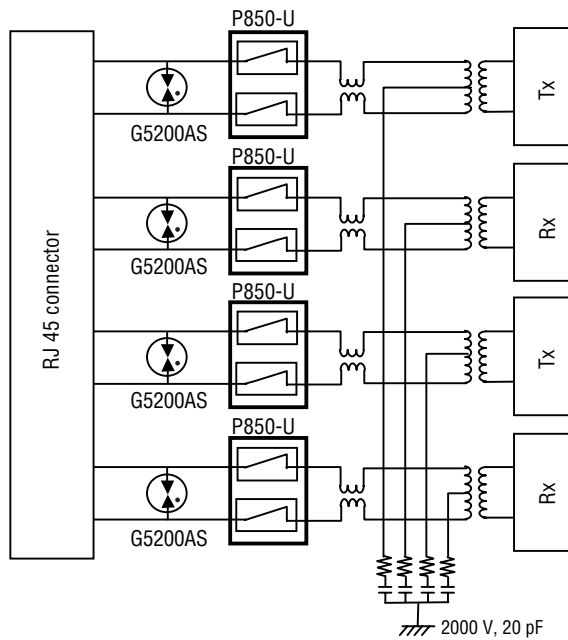


TBU	GDT
C650-xxx	G5500AS
C650-xxx	G6000AS
C850-xxx	G5200AS

Telecom, Industrial and Other General Electronics



ADSL, VDSL and VDSL2

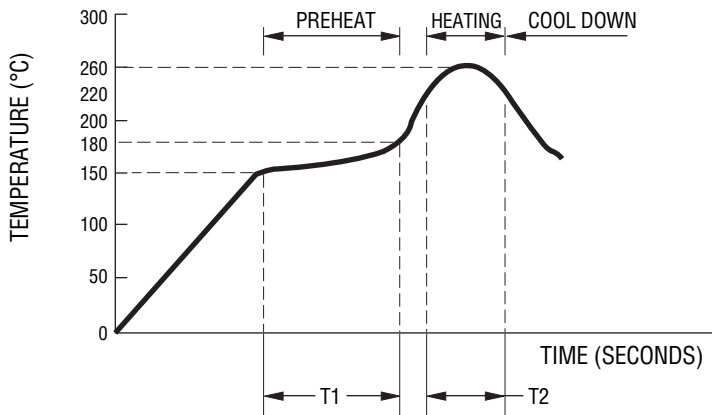


Ethernet

Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications

Standard Soldering Condition

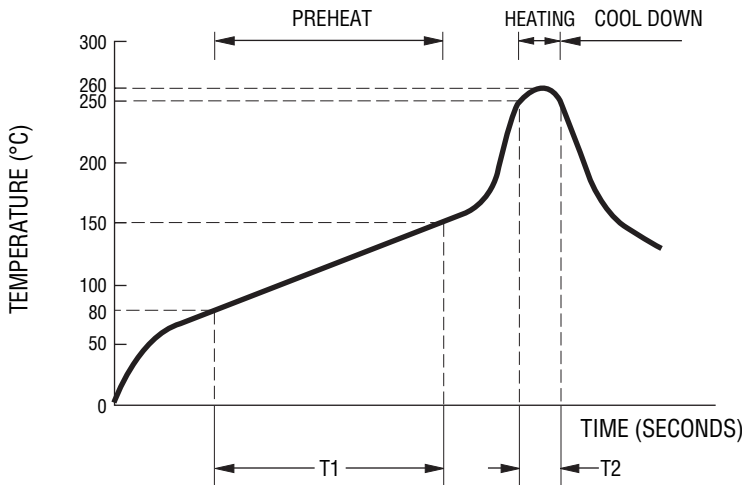
REFLOW SOLDERING SYSTEM



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.	

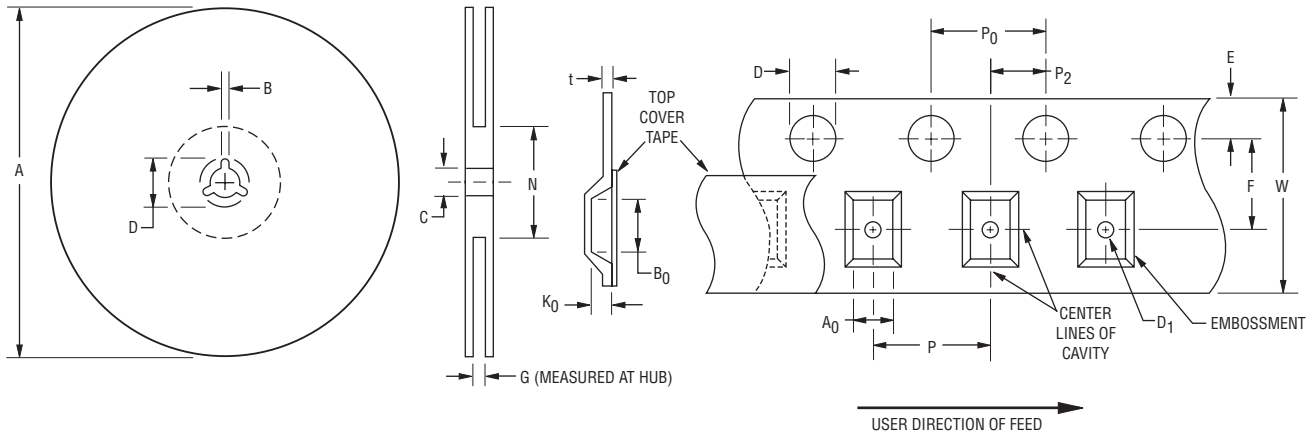
Soldering Iron

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

G5000 and G6000 Series Overvoltage Protectors

BOURNS®

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



Asia-Pacific:

Tel: +886-2 2562-4117 • Fax: +886-2 2562-4116

Europe:

Tel: +41-41 768 5555 • Fax: +41-41 768 5510

The Americas:

Tel: +1-951 781-5500 • Fax: +1-951 781-5700

www.bourns.com

REV. 09/09

Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications