То	: DIGI-KEY	CORPORATIO	• •	Issue No.	:	151EYG101	014006	
				Date of Issue	:	14.Oct.2010)	
				Classification	:	New	Changed	

SPECIFICATION SHEET

Product Description : PGS Graphite Sheet

Product Part Number : EYGA121803S

Customers Part Number :

Country of Origin : Japan

Applications :

Circuit Components Business Unit

Panasonic Electronic Devices Co.,Ltd.

1037-2 Kamiosatsu, Chitose City, Hokkaido 066-8502 Japan

Engineering Section

Prepared by : Phone : +81-123-23-8149 (Direct)

Panasonic

CLASSIFICATION SPECIFICATION SHEET No. 151S- EYGA121803S SUBJECT Part Number PAGE 1 of 4 PGS Graphite Sheet EYGA121803S DATE 14.Oct.2010

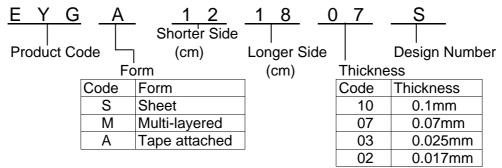
1.Scope

This specification applies to Panasonic's PGS Graphite Sheet

2.Explanation of Part Number

Subject : PGS Graphite Sheet

Part Number: EYGA121803S



3. Operating and storage Temperature Range

Operating Temperature Range: -20 to 100 cels. Storage Temperature Range: -20 to 80 cels.

4.Performance

4-1.Appearance

Contents	Performance	Test Method
4-1-1	There shall be no mechanical	Compared with limit sample
Appearance	scars,tears,hollows which	
	affect the performance	
4-1-2	Shown in the figure	
Shape and Dimension	Page 4 of 4	

4-2.Initial Performance

Contents	Performance	Test Method
4-2-1	More than 5.0 cm ² /sec	Test piece;30mm×5mm sheet
Thermal Diffusivity		Testing equipment;"Laser Pit"
(PGS)		Model PIT-IM type
		(The Manufacturer of the
		Equipment is SINKU-RIKO)

4-3. Reliability Tests

Contents	Performance	Test Method
4-3-1	Shall meet the performance	Test temperature : 85±3 cels.
Damp Heat Test	prescribed clause 4-1 and 4-2-1	Relative humidity: 85±5 %RH
		Test period : 1000 hours

Circuit Components Business Unit	APPROVAL	CHECK	DESIGN
Panasonic Electronic Devices Co.,Ltd.	Funcho	Kubo	Kawamura
1037-2 Kamiosatsu, Chitose City, Hokkaido, Japan	Funaba	Kubo	Nawaiiiuia

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4-3-2	Condition the specimen to each				
Temperature cycle	prescribed clause 4-1 and 4-2-1	temperature from 1 to 4 for the period			for the period
		sh	own ir	the table belo	W.
		Re	egardii	ng this conditio	ns as one cycle,
		ре	rform	1000 cycles co	ntinuously.
			step	temperature	period(min)
			1	-20 cels.	10
			2	Room Temp.	3 max.
			3	+105 cels.	10
			4	Room Temp.	3 max.
4-3-3	Shall meet the performance	Te	st tem	perature : 100	cels.
High Temperature	prescribed clause 4-1 and 4-2-1	Test period : 1000 hours		S	
Resistance					
4-3-4	Shall meet the performance	Test temperature : -20 cels.			cels.
Low Temperature	prescribed clause 4-1 and 4-2-1	Test period : 1000 hours			
Resistance					

5. Packaging

10 sheets of PGS Graphite Sheets shall be put in a plastic bag and the plastic bag shall be sealed. Maximum 20 plastic bags shall be put in an inner carton and a tag on goods specifying Product Name, Part No., Lot No, Quantity shall be put on the top face of the inner carton.

(Max 200 pcs. per inner carton)

Maximum 5 inner cartons shall be put in an outer packaging box and a label specifying Product Name, Part No., Lot No, Quantity (Max 1,000 pcs.), County of Origin in English shall be put on the side of the outer packaging box.

- 6. Handling Precautions
- 6.1 <u>/!</u> Safety Precaution
 - 6.1.1 The PGS shall be used within the specified operating temperature range.
 - 6.1.2 The PGS is soft, do not rub or touch it with rough materials to avoid scratching it.
 - 6.1.3 Lines or folds in the PGS may affect thermal conductivity.
 - 6.1.4 The PGS shall not be used with acid.
 - The PGS shall not be used in contact with a soldering iron at 400 or more.
 - 6.1.5 The PGS shall not be exposed to salt water or direct sunlight during use. The PGS shall not be used in corrosive gases (hydrogen sulfide, sulfurous acid, chlorine, ammonia etc.)
 - 6.1.6 Our PGS has been developed for general industry application. Prior to using the PGS for special applications such as medical, aerospace and aircraft work please contact our engineering staff or the factory.
 - 6.1.7 Never touch a PGS during use because it may be extremely hot.

Note:			

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6.2 Application notes

- 6.2.1 Use protective materials when handling and/or applying the PGS, do not use items with sharp edges as they might tear or puncture the PGS.
- 6.2.2 The PGS dose not work properly if overheated.
- 6.2.3 Thermal conductivity is dependant on the way it is used.

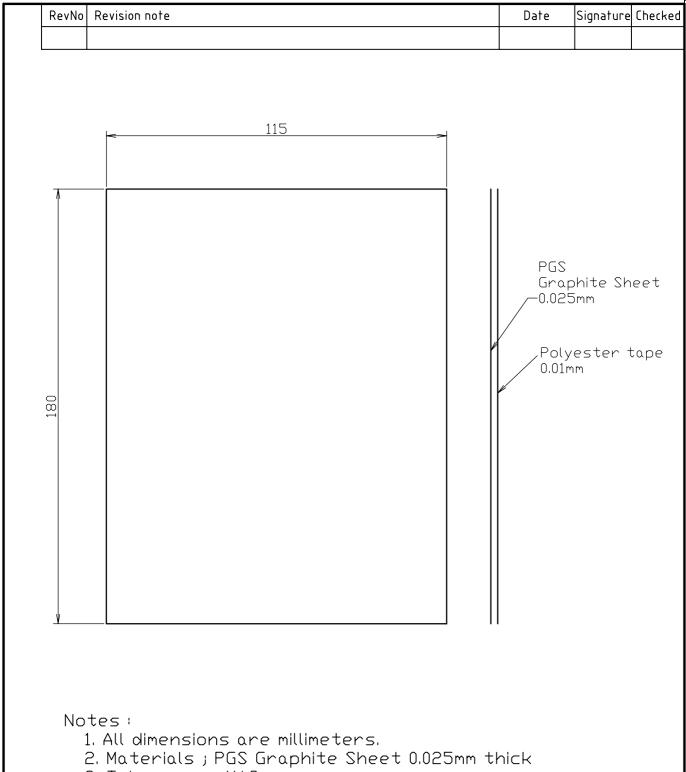
 Test the adaptability of PGS to your application before use.
- 6.2.4 The PGS has conductivity. If required, the PGS should be provided insulation.
- 6.2.5 Punching Graphite sheets sends graphite powder; therefore, your check whether or not the graphite powder fall harms devices is necessary.
- 6.2.6 The PGS shall not be stored under severe conditions of salt water, direct sunlight or corrosive gases (hydrogen sulfide, sulfurous acid, chlorine, ammonia etc.).

The PGS shall not be stored near acid.

7. Substance of this product

- 7-1 This product not been manufactured with any ozone depleting chemical controlled under the Montreal Protocol.
- 7-2 This product comply with RoHS(Restriction of the use of certain Hazardous Substance in electrical and electronic equipment) Directive(2002/95/EC).
- 7-3 All the materials used in this part are registered material under the Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substance.

Note:		



3. Tolerance; X±3

② 1 Polyester tape (0.01mm)						
① 1 PGS Graphite She			neet (0.025mm)			
Itemref Quantity Title/Name, designation, mat			aterial, dimension etc	al, dimension etc Article No./Reference		
Design N.K	Design CheckKAWAMURA K.KUBD		Approval M.FUNABA			Scale
CIRCUIT COMPONENTS BUSINESS UNIT			Name PGS Graphite She	et	Type No. EYGA	1218035
PANASONIC ELECTRONIC DEVICES CO.,LTD			Drawing No. 4-4	ΕY	JA121803S	