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Passive Components for Space Electronics

Proven on Earth. Ready for Space.



Reliability starts with Control

1

Parameter Stability

Capacitance, leakage current and ESR remain controlled across life and environment.

2

Mechanical Integrity

Terminations and solder joints tolerate vibration and repeated thermal movement.

3

Evidence & Traceability

Test data, lot history, controlled changes and a clear failure-analysis path.

4

Automotive discipline

Mature manufacturing, repeatable processes and long-term documentation support.

Polymer Capacitor Options

SP-Cap
Polymer Aluminum Capacitor



- Ultra-low ESR down to 3 mΩ
- Endurance up to 5,500 h at 135°C
- 2 to 6.3V range

Ultra Low ESR | **Space-Saving** | **Long Lifetime**

POSCAP
Polymer Tantalum Capacitor



- Low ESR down to 5mΩ
- High capacitance in compact sizes
- 2 to 35V range

High Capacitance | **Space-Saving**

Design for Miniaturization, Stable Capacitance and a Compact Power Architecture.

Learn more about Polymer Capacitors

Panasonic Industry Europe GmbH | passivesforspace@eu.panasonic.com

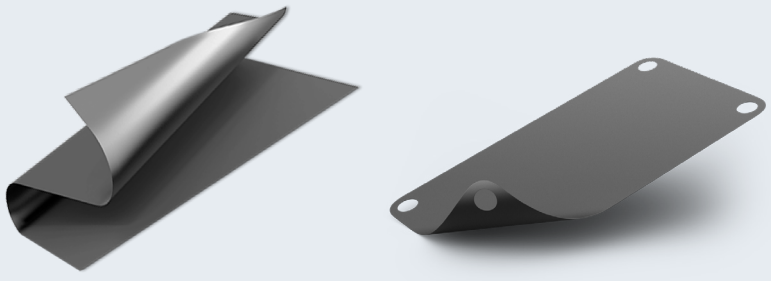
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PGS Sheet

Flexible by Design. Weightless by Nature.

Thermal Management

A thermal path is no longer a simple conductor. It's an engineered architecture.



PGS
Pyrolytic Graphite Sheet

- Manages **where** heat goes (anisotropy)
- Hot-spot heat diffusion
- Fast in-plane heat transport
- Thermal straps and PCB heat spreading

GTIM
Graphite Thermal Interface

- Manages **how** heat flows between isotropic materials
- Compressible thermal interface
- Clamp TIM for cold-plate assemblies
- Conforms to surface roughness and gaps

Performance at a glance

1950	0.85	0.18	20	10
λxy^1 [W/mK]	[g/cm^3]	Rth^1 [K·cm^2/W]	Tensile Strength [MPa]	Diffusivity [cm2/s]

Designed for demanding Thermal Architectures

- Spacecraft electronics
- PCB hot spots
- Deployable radiators
- Cold plates
- Power electronics
- Compact compute systems

PGS is present in space and has been outgassing tested.[1]

[1] Values shown are based on the supplied technical presentation and depend on grade, thickness and test conditions. PGS is electrically conductive.

ENGINEER YOUR COMPLETE THERMAL PATH

Contact your Panasonic Industry representatives to discuss your application.

passivesforspace@eu.panasonic.com

Learn more about PGS

Learn more about GTIM