

## Applications

Power Electronics • Power Modules • DC/DC converters • Special applications

## Geometrical Parameters

Parameter	Units	Values	Comment / Advantages
Maximum substrate / PCB size	mm	290 x 450	
Minimum substrate / PCB size	mm	8 x 8	
Thickness of aluminum base	mm	0.35 / 1 / 1.5 / 3	Tolerance $\pm 10\%$ ; 3 mm thickness being tested
Thickness of oxide (Al <sub>2</sub> O <sub>3</sub> ) layer	$\mu\text{m}$	3 - 150	Tolerance $\pm 5\%$ ; 200 $\mu\text{m}$ under development
Thickness of copper layer	$\mu\text{m}$	1 - 100	Tolerance $\pm 10\%$ ; 150-300 $\mu\text{m}$ under development
Thickness of solder mask layer	$\mu\text{m}$	20 - 40	Tolerance $\pm 10\%$
Tolerance of overall PCB thickness		$\leq 10\%$	Depends on thickness and quantity of layers
Finish parameters	ImAg, ENIG & Solder mask		Typical. ENEPIG optional

TECHNICAL SPECIFICATION

# AL OXIDE GEN. 2.0 - 2.5 SUBSTRATE

Version 1.0/2018



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## Mechanical Data

Parameter	Units	Values	Comment / Advantages
Young Modules (E)	Gpa	130	
Flexural Strength	MPa	60	

## Thermal Data

Parameter	Units	Values	Comment / Advantages
Thermal Coefficient of Expansion (TCE)	ppm/deg	8 - 12	This value is adjustable and controllable.
Integral thermal conductivity	W/(m·K)	≥ 100	Depends on aluminum base thicknesses
Operating temperatures	deg	<350	

## Electrical Data

Parameter	Units	Values	Comment / Advantages
Withstand Voltage	Volts	≥ 4000	70 μm thickness of dielectric



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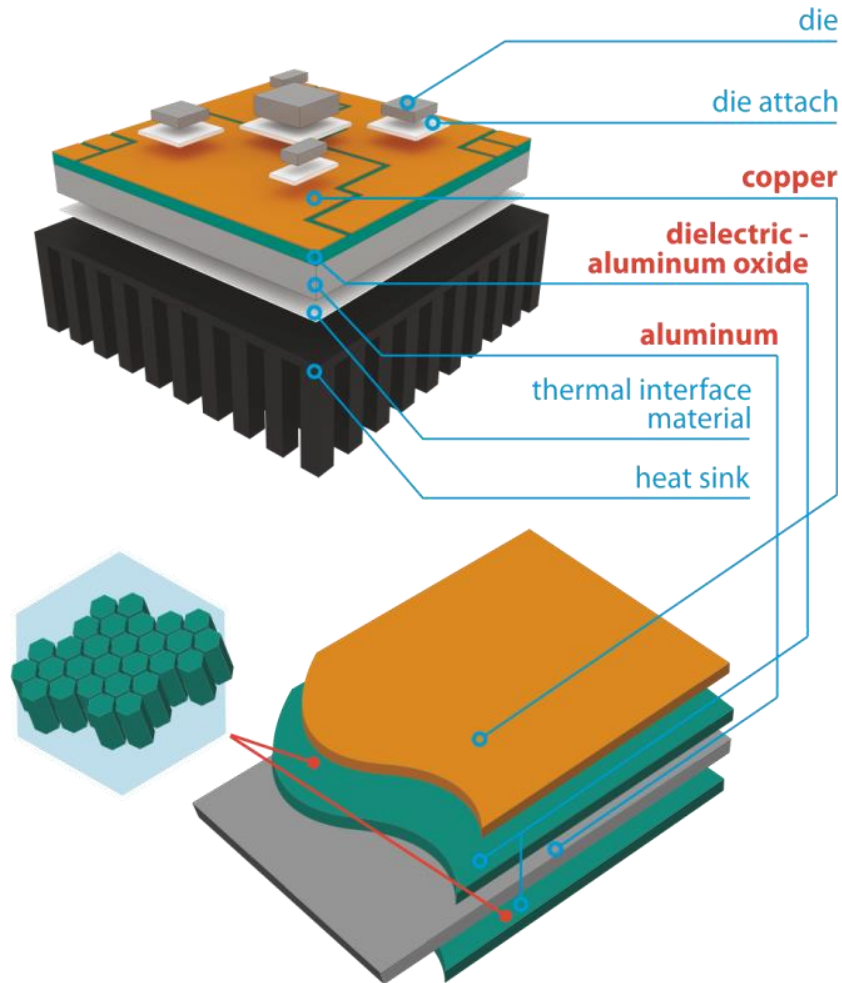
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