

## ONE METAL LAYER, AMST™ – ALOX™ SUBSTRATE

### Technical Specification

### Mechanical Data

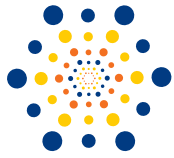
Parameter	Conditions/std.	Units	Value	Comments
Young Modulus (E)		Gpa	130	
Poison Ratio (ν)		--	0.29	
Flexural Strength		GPa	60,000	

### Thermal Data

Parameter	Conditions/std.	Units	Value	Comments
Thermal Coefficient of Expansion (TCE)		ppm/deg	8-12	This value is adjustable and controlable. Great advantage over plastics in matching properties to the silicon die.
Thermal Conductivity – Dielectric		Watt/ m*deg	5-15	Property of the Dielectric. Significant advantage.
Thermal Conductivity - Aluminum		Watt/ m*deg	240	Integral Heat Sink
Operating temperatures		deg	< 350°C	

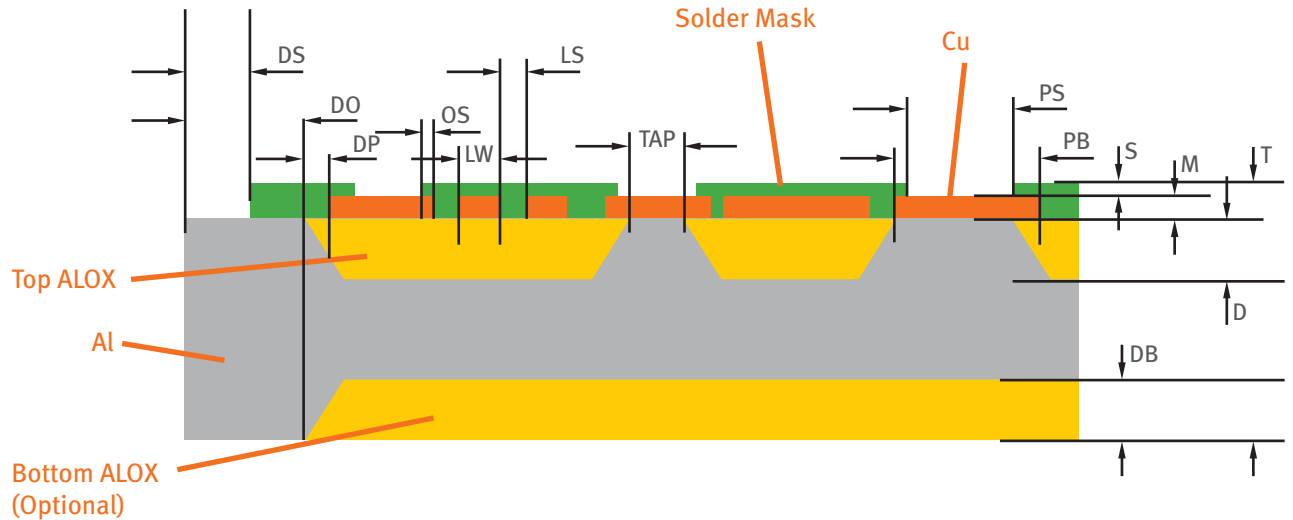
### Electrical Data

Parameter	Conditions/std.	Units	Value	Comments
Withstand Voltage	75 μm	Volts	2,500	See BDV application note
Receptivity of Cu traces	@20μm and 10μm re- spectively	Ω/square.	0.0017-0.0025	MCL measurements



## Geometrical Data

### AMSTM SUBSTRATE 1+1/2 METAL LAYERS (BOTTOM METAL IS OPTIONALLY)



## Terms Descriptions and Dimensions of Elements

#	Name of elements	Short Description	Minimum (µm)	Maximum (µm)
1.	TAP	Aluminum via pad	200x200 or Ø 200	N/A
2.	PB	Blind via Cu pad	TAP+200	Limited by DP
3.	D/DB	Dielectric layer thickness	20	95
4.	LW	Line width	150	N/A
5.	LS	Line space	150	N/A
6.	PS	Solder mask opening	200	Smaller 200 from Cu pad size
7.	OS	Solder mask /Pad overlapping	0	N/A
8.	M	Metal layer thickness	10	50
9.	S	Solder mask layer thickness	35	N/A
10.	T	Total substrate thickness	500	3,000
11.	DP	Distance of Cu pad from ALOX edge	200	N/A
12.	DO	Distance of ALOX edge from unit edge	300	N/A
13.	DS	Distance of SM edge from unit edge	50	N/A