

## Thermal Insulated Metal Substrates

Mechanical Construction				
Layer	Material		Thickness	
Circuit Layer	ED Copper	1 oz.	.0014"	35 µm
	ED Copper	2 oz.	.0028"	70 µm
	ED Copper	3 oz.	.0042"	100 µm
	ED Copper	4 oz.	.0056"	140 µm
Dielectric Layer	Ceramic Polymer		.003"	75 µm
Base Layer	Aluminum		.040"	1.0 mm
			.062"	1.6 mm
			.080"	2.0 mm
			.125"	3.2 mm

### Benefits

- Cost Effective Pricing
- Reduce Hardware and Assembly Costs
- Use Surface Mount Designs
- Heat Dissipation Management
- Improve Reliability
- Replace Fragile Ceramic Components

Electrical Characteristics	
Volume Resistivity	10 <sup>14</sup> ohms.m
Breakdown Voltage (kVAC)	6
Surface Resistivity	10 <sup>13</sup>
Permittivity	4.2 - 4.5
Dissipation Factor (1MHz)	0.03
Capacitance (pF/in <sup>2</sup> )	450

Test Sample: 2.0 mm thick, 1 oz. copper, 600 mm x 500 mm

Durability	
Flammability	UL 94V0
Dipping Solderability	180 seconds

- Parts Manufactured per Customer Requirements

Dielectric Characteristics							
		THERMAL PERFORMANCE		DIELECTRIC PERFORMANCE		OTHER	
Part Number	Thickness [10 <sup>-3</sup> in/10 <sup>-6</sup> m]	Impedance [°C/W]	Conductivity [W/m-K]	Breakdown [kVDC]	Permittivity [Dielectric Constant] 1MHz	Glass Transition [°C]	Peel Strength [lb/in]/[Kg/cm]
BT180	3.1/80	1.50	0.82	2.0	4.5	132	10.1/1.8
BT1100	3.9/100	2.00	0.82	3.0	4.5	132	10.1/1.8
BT2160	2.4/60	0.43	2.00	1.5	7.5	162	7.8/1.4
BT2180	3.1/80	0.66	2.00	2.0	7.5	162	7.8/1.4
BT22150	5.9/150	0.75	2.30	1.0	9.0	162	7.8/1.4
BT2380	3.1/80	0.55	2.20	2.0	4.2	162	7.8/1.4
BT2360	2.4/60	0.42	2.20	1.5	4.2	162	7.8/1.4

Notes :1) Impedance and Conductivity measurements are per Industrial Standards.

2) All other measurements are per Standard JIS-648.

All Segue production facilities are ISO 9000 certified, and all the components used are UL and CSA registered as required. The above part parameters may be adjusted to meet customer requirements. For more information, please call us at 888-535-2366 or send an email to [info@SegueElectronics.com](mailto:info@SegueElectronics.com).