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Thermalsil III

RoHS Compliant

Thermally Conductive Silicone Rubber Insulators

The newest Thermalsil III formula has improved thermal conductivity, providing excellent thermal resistance. It is used as an electrically-isolating interface material composed of silicone elastomer binder with a thermally conductive filler. It is reinforced with glass cloth to resist tearing and cut-through due to burrs on transistors or heat sinks.

Thermalsil III eliminates the need for grease application and conforms to mounting surfaces under clamping pressure for optimum heat conduction.

Thermalsil III is 0.152mm (0.006") thick and grey green in color. A finely woven glass cloth provides the thinnest possible matrix for enhanced thermal resistance.

To order Thermalsil III with adhesive coated backing, add suffix "AC" to the part number. For example, 53-03-2AC.

Thermalsil III is available in any configuration with adhesive backing. Order by adding "AC" after the part number. For example: 53-03-2AC.

Bulk Thermalsil III

Thermalsil III is also available in three widths, with and without adhesive coated backing (AC). Thermalsil III is 0.152mm (0.006") thick.

Part No.*	RoHS	PCN	Width
5300 1.500G	RoHS Compliant	N/A	38.10mm (1.500")
5300AC 1.500G	RoHS Compliant		38.10mm (1.500")
5300 2.875G	RoHS Compliant	N/A	76.20mm (3.000")
5300AC 2.875G	RoHS Compliant	N/A	76.20mm (3.000")
5300 6.000G	RoHS Compliant	N/A	152.40mm (6.000")
5300AC 6.000G	RoHS Compliant	N/A	152.40mm (6.000")

*Available in full (328 ft.) length rolls only

Thermalsil III

Property	Typical Value 25°C	Test Method
Electrical		
Dielectric Constant	2.5@50 Hz 2.5@103 Hz 2.5@106 Hz	ASTM D150
Dielectric Breakdown Voltage	26.3 x 103 volts/mm (667 volts/mil) ASTM D-149	ASTM D149
Volume Resistivity	5.7 x 10 ¹⁵ ohm-cm	ASTM D257
Dielectric Dissipation Factor	.008@50 Hz .004 @103 Hz .004 @106 Hz	ASTM D150
Physical		
Thickness	.15 + .03/- .05mm (0.006 + .001/- .002 in.)	
Color	Gray-Green	
Tensile Strength	6.1 x 10 ⁷ Pa (8786 psil)	
Hardness, Shore A	87	

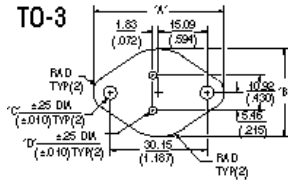
Check Distributor Stock

Enter a part number for pricing and availability.

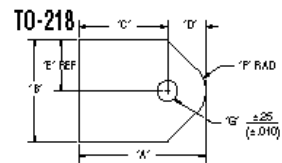
Thermalsil III - heat sink interface material

Elongation	2% or less	
Thermal		
Thermal Conductivity	0.92 w/m °C	
Flame Resistance	UL 94V-0	UL card #E-58126 (S)
Service Temperature	-60°C to 180°C (-76°F to 356°F)	

Standard Thermalsil Configurations

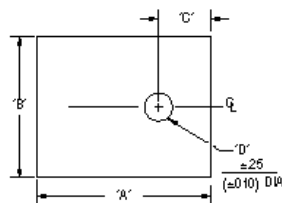


Part Number	RoHS	PCN	A	B	C	D
53-03-2G	RoHS Compliant	Product Change Notice	42.04 (1.655)	27.00 (1.063)	3.96 (0.156)	1.57 (0.062)
53-03-11G	RoHS Compliant	N/A	41.81 (1.646)	28.58 (1.125)	3.96 (0.156)	2.36 (0.093)
53-03-12G	RoHS Compliant	N/A	41.91 (1.650)	28.96 (1.140)	3.56 (0.140)	2.36 (0.093)
53-03-14G	RoHS Compliant	N/A	39.70 (1.563)	26.67 (1.050)	3.56 (0.140)	2.36 (0.093)
53-03-15G	RoHS Compliant	N/A	40.46 (1.593)	27.94 (1.100)	3.96 (0.140)	1.78 (0.070)
53-03-16G	RoHS Compliant	N/A	43.18 (1.700)	30.15 (1.187)	3.96 (0.156)	1.60 (0.063)



Part Number	A	B	C	D	E	F	G
53-02-95G	23.24 (0.915)	18.80 (0.740)	16.26 (0.640)	6.99 (0.275)	9.40 (0.370)	5.59 (0.220)	3.66 (0.144)
53-02-103G**	23.80 (0.937)	19.05 (0.750)	16.66 (0.656)	7.14 (0.281)	9.53 (0.375)		3.18 (0.125)
53-78-3G* **	25.40 (1.000)	20.32 (0.800)					

TO-220

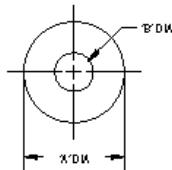


Part Number	RoHS	PCN	A	B	C	D
53-77-2G			17.50	14.27	5.54	3.18

Thermalsil III - heat sink interface material

	RoHS Compliant	Product Change Notice	(0.687)	(0.562)	(0.218)	(0.125)
53-77-3G	RoHS Compliant	Product Change Notice	17.50 (0.687)	41.27 (0.562)	4.70 (0.185)	2.36 (0.093)
53-77-4G	RoHS Compliant	Product Change Notice	19.05 (0.750)	12.70 (0.500)	4.75 (0.187)	3.73 (0.147)
53-77-5G	RoHS Compliant	N/A	20.32 (0.800)	15.24 (0.600)	5.54 (0.218)	2.79 (0.110)
53-77-9G	RoHS Compliant	N/A	18.42 (0.725)	13.21 (0.520)	4.32 (0.170)	2.92 (0.115)
53-77-10G	RoHS Compliant	N/A	20.96 (0.825)	22.99 (0.905)	5.33 (0.210)	3.68 (0.145)
53-77-11G	RoHS Compliant	N/A	26.16 (1.030)	13.21 (0.520)	3.81 (0.150)	3.30 (0.130)
53-77-13G	RoHS Compliant	N/A	18.03 (0.710)	12.70 (0.500)	4.06 (0.160)	3.58 (0.141)
53-78-1G*	RoHS Compliant	N/A	22.10 (0.870)	15.70 (0.620)		

WASHER



Part Number	A	B
53-02-10G	14.27 (0.562)	5.16 (0.203)
53-02-25G	20.62 (0.812)	6.73 (0.266)

* This insulator is made especially for clip-mount heat sinks, thus requiring no mounting hole.
 ** These insulators may also be used for TO-3P and TO-247 devices.

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