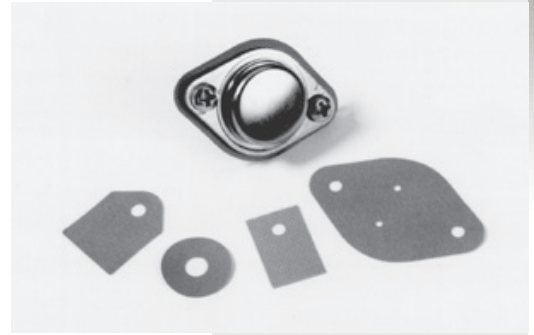


# OMNIPAD SERIES THERMAL INSULATORS CATALOG



Wakefield's Omnipad Series of thermally conductive, electrical insulators are highly efficient and designed for semiconductor to heat sink interfaces. Their properties eliminate messy concerns associated with thermal greases. This is the best product wherever electrical contact and thermal transfer are needed.

## Applications

- Notebook computers
- Telecom stations
- Motor controls
- Power supplies/converters
- Semiconductors
- Automotive

PHYSICAL PROPERTY	WTC00*	WTI01	WTI02	WTI03	WTI04	WTI05	WTI06
TENSILE STRENGTH (PSI)	650	450	35	35	35	450	2400
UL FLAMMABILITY RATING (VO)	94	94	94	94	94	94	94
TEMPERATURE RANGE (°C)	-240 to 300	-50 to 200	-50 to 200	-50 to 200	-50 to 200	-50 to 200	-50 to 200
THERMAL CONDUCTIVITY (W/mK)	240	0.8	1.3	0.9	1.1	2.0	3.5
THERMAL RESISTANCE @ 100PSI (°C-IN²/W)	0.07	0.585	0.401	0.688	0.658	0.605	0.205
DIELECTRIC BREAKDOWN VOLTAGE (KVAC)	N/A	>5000	>6000	>6000	>6000	>4000	>4000
DIELECTRIC CONSTANT (1KHz)	N/A	5.5	3.7	5.0	5.0	5.5	3.0-3.5
RoHS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
HALOGEN	N/A	PASS	PASS	PASS	PASS	PASS	PASS
REACH	PASS	PASS	PASS	PASS	PASS	PASS	PASS

\* This material is NOT an electrical insulator like the others. It is a conductor.

## Part Numbering Guide

Following the guide below, choose your options and build your part number to use for placing your order. All available options are listed on the catalog pages to follow.

Product Type	Thickness (mil)	Shape	# of Holes	Backing Material	# of Sides w/ Adhesive	Overall Dims. (in)	Complete WV Part Number
WTI	10	RECTANGLE	1	FIBERGLASS	1	0.87 x 0.79	WTI10R1F1 - 0.87 x 0.79

Key	
<b>Product Type</b>	Wakefield offers a line of thermal insulators (WTI) or conductors (WTC).
<b>Thickness</b>	The thickness of the part in mil (1/1000th"). Only use the decimal whenever the thickness in mils is not a whole number.
<b>Shape</b>	The parts come in (4) basic shapes, indicated by the first letter C, D, R or S. Round = Circle. Rhombus = Diamond.
<b># of Holes</b>	The number of holes needed can vary from 0 to 8.
<b>Backing Material</b>	They come in (3) different backing materials or none at all. These are indicated by the first letter A, F, K or N.
<b># of Sides w/ Adhesive</b>	These can come without adhesive or you can choose 1 side or both.
<b>Overall Dimensions</b>	Depending on shape, pick the width x height, outer diameter or outer diameter x inner diameter you need.

Available Options
WTI, WTC
4, 4.5, 5, 5.5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 20
Circle, Diamond, Rectangle, Square
0, 1, 2, 3, 4, 5, 6, 7, 8
Aluminum, Fiberglass, Kapton, None
0, 1, 2
See Catalog pages to follow for option details.

# TABLE OF CONTENTS

For Questions  
and More  
Information,

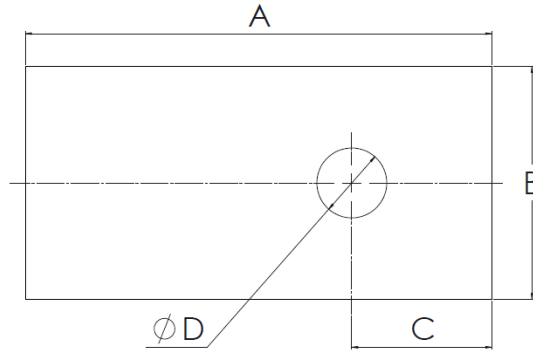
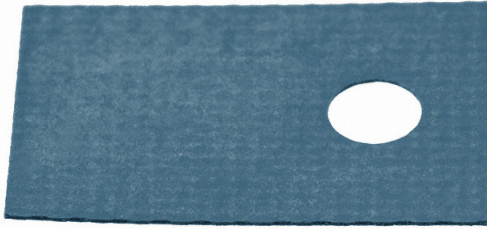
**CONTACT  
WAKEFIELD**

<b><u>PAGE NO.</u></b>	<b><u>CONTENTS</u></b>
<b>1</b>	RECTANGULAR WITH (1) HOLE
<b>2</b>	RECTANGULAR WITHOUT HOLES
<b>3</b>	DIAMOND-SHAPED WITH (4) HOLES
<b>4</b>	DIAMOND-SHAPED WITH (6) HOLES
<b>5</b>	CIRCULAR WITH (3) HOLES
<b>6</b>	RECTANGULAR WITH (1) HOLE, (2) CHAMFERS
<b>7</b>	RECTANGULAR WITH (1) HOLE, (2) ROUNDS
<b>8</b>	RECTANGULAR WITH (2) SLOTS
<b>9</b>	SQUARE WITH (1) HOLE
<b>10</b>	SQUARE WITHOUT HOLES

# RECTANGULAR WITH (1) HOLE

For Questions  
and More  
Information,

**CONTACT  
WAKEFIELD**



Wakefield Part Number	Wakefield Material Number	Application(s)	Thickness (in)	Body Material	Backing Material	Adhesive	Color	Thermal Conductivity (W/m/K)	Dimension (in) [see drawing view below]			
									A	B	C	D
WTC5R1A1 - 0.75 X 0.50	WTC00	TO-220	0.005	GRAPHITE	ALUMINUM	1-SIDED	WHITE	1.00	0.75	0.50	0.19	0.13
WTC5R1F0 - 0.69 X 0.56	WTC00	TO-220	0.005	GRAPHITE	FIBERGLASS	NONE	BLACK	2.00	0.69	0.56	0.22	0.13
WTC5R1F0 - 0.75 X 0.50	WTC00	TO-220	0.005	GRAPHITE	FIBERGLASS	NONE	GRAY	2.00	0.75	0.50	0.19	0.15
WTC5R1F0 - 0.86 X 0.74	WTC00	TO-218, TO-220, TO-247	0.005	GRAPHITE	FIBERGLASS	NONE	BLACK	2.00	0.86	0.74	0.20	0.16
WTC5R1F0 - 1.00 X 0.75	WTC00	TO-218, TO-220, TO-247	0.005	GRAPHITE	FIBERGLASS	NONE	BLACK	2.00	1.00	0.75	0.30	0.14
WTC6R1A0 - 0.75 X 0.50	WTC00	TO-220	0.006	SILICONE	ALUMINUM	NONE	BLACK	2.50	0.75	0.50	0.19	0.15
WTI7R1F0 - 0.69 X 0.56	WTI01	TO-220	0.007	SILICONE	FIBERGLASS	NONE	GRAY	0.80	0.69	0.56	0.22	0.13
WTI7R1F0 - 0.75 X 0.50	WTI01	TO-220	0.007	SILICONE	FIBERGLASS	NONE	GRAY	0.80	0.75	0.50	0.19	0.13 *
WTI7R1F0 - 0.86 X 0.74	WTI01	TO-218, TO-220, TO-247	0.007	SILICONE	FIBERGLASS	NONE	GRAY	0.80	0.86	0.74	0.20	0.16
WTI7R1F0 - 1.00 X 0.75	WTI01	TO-218, TO-220, TO-247	0.007	SILICONE	FIBERGLASS	NONE	GRAY	0.80	1.00	0.75	0.30	0.14
WTI7R1F1 - 0.75 X 0.50	WTI01	TO-220	0.007	SILICONE	FIBERGLASS	1-SIDED	GRAY	0.80	0.75	0.50	0.19	0.13 *
WTI7R1F1 - 1.00 X 0.75	WTI01	TO-220	0.007	SILICONE	FIBERGLASS	1-SIDED	GRAY	0.80	1.00	0.75	0.30	0.14
WTI9R1F0 - 0.69 X 0.56	WTI01	TO-220	0.009	SILICONE	FIBERGLASS	NONE	GRAY	0.80	0.69	0.56	0.22	0.13
WTI9R1F0 - 0.75 X 0.50	WTI01	TO-220	0.009	SILICONE	FIBERGLASS	NONE	GRAY	0.80	0.75	0.50	0.19	0.13 *
WTI9R1F0 - 0.86 X 0.74	WTI01	TO-218, TO-220, TO-247	0.009	SILICONE	FIBERGLASS	NONE	GRAY	0.80	0.86	0.74	0.20	0.16
WTI9R1F1 - 0.69 X 0.56	WTI01	TO-220	0.009	SILICONE	FIBERGLASS	1-SIDED	GRAY	0.80	0.69	0.56	0.22	0.13
WTI9R1F1 - 1.00 X 0.75	WTI01	TO-220	0.009	SILICONE	FIBERGLASS	1-SIDED	GRAY	0.80	1.00	0.75	0.30	0.14
WTI6R1F1 - 1.00 X 0.75	WTI02	TO-220	0.006	SILICONE	KAPTON	NONE	GRAY	1.30	1.00	0.75	0.30	0.14
WTI6R1K0 - 0.69 X 0.56	WTI02	TO-220	0.006	SILICONE	KAPTON	NONE	GRAY	1.30	0.69	0.56	0.22	0.13
WTI6R1K0 - 0.75 X 0.50	WTI02	TO-220	0.006	SILICONE	KAPTON	NONE	GRAY	1.30	0.75	0.50	0.19	0.13 *
WTI6R1K0 - 0.86 X 0.74	WTI02	TO-218, TO-220, TO-247	0.006	SILICONE	KAPTON	NONE	GRAY	1.30	0.86	0.74	0.20	0.16
WTI6R1K0 - 0.95 X 0.83	WTI02	TO-218, TO-220, TO-247	0.006	SILICONE	KAPTON	NONE	GRAY	1.30	0.95	0.83	0.20	0.15
WTI6R1K0 - 0.75 X 0.50	WTI03	TO-220	0.006	SILICONE	KAPTON	NONE	GRAY	0.90	0.75	0.50	0.19	0.13 *
WTI6R1K0 - 1.00 X 0.75	WTI04	TO-218, TO-220, TO-247	0.006	SILICONE	KAPTON	NONE	GRAY	1.10	1.00	0.75	0.30	0.13 *
WTI6R1N0 - 0.75 X 0.50	WTI05	TO-220	0.009	SILICONE	FIBERGLASS	NONE	PINK	1.20	0.75	0.50	0.19	0.15
WTI9R1F1 - 0.75 X 0.50	WTI05	TO-220	0.009	SILICONE	FIBERGLASS	1-SIDED	PINK	1.60	0.75	0.50	0.19	0.13 *
WTI9R1N0 - 0.75 X 0.50	WTI05	TO-220	0.009	SILICONE	NONE	NONE	PINK	1.00	0.75	0.50	0.19	0.13 *
WTI9R1N0 - 0.86 X 0.74	WTI05	TO-218, TO-220, TO-247	0.009	SILICONE	NONE	NONE	PINK	1.00	0.86	0.74	0.20	0.16
WTI9R1N0 - 0.95 X 0.83	WTI05	TO-218, TO-220, TO-247	0.009	SILICONE	NONE	NONE	PINK	1.00	0.95	0.83	0.20	0.16
WTI9R1N0 - 1.00 X 0.75	WTI05	TO-218, TO-220, TO-247	0.009	SILICONE	NONE	NONE	PINK	1.00	1.00	0.75	0.30	0.14
WTI10R1F1 - 0.44 X 0.31	WTI05	TO-126	0.010	SILICONE	FIBERGLASS	1-SIDED	PINK	2.00	0.44	0.31	0.14	0.12
WTI15R1F0 - 0.75 X 0.50	WTI06	TO-220	0.015	SILICONE	FIBERGLASS	NONE	WHITE	3.50	0.75	0.50	0.19	0.13 *
WTI15R1F0 - 1.00 X 0.75	WTI06	TO-220	0.015	SILICONE	FIBERGLASS	NONE	WHITE	3.50	1.00	0.75	0.30	0.14

\* Also available with Ø0.15" hole. The standard is Ø0.13" due to the hardware typically used being M3 (Ø0.12"). So, the smaller hole is less likely to allow accidental electrical creep. We recommend this version. However, if you prefer the larger hole, please submit a request and we will have them made for you. Just give us the part number you want but specify the larger hole diameter.

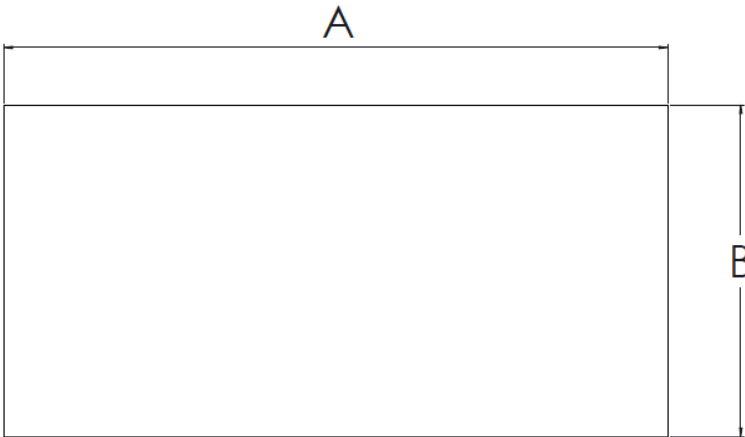
# RECTANGULAR WITHOUT HOLES

For Questions  
and More  
Information,

**CONTACT  
WAKEFIELD**



Wakefield Part Number	Wakefield Material Number	Application(s)	Thickness (in)	Body Material	Backing Material	Adhesive	Color	Thermal Conductivity (W/m/K)	Dimensions (in)	
									A	B
WTC5R0F0 - 1.50 X .090	WTC00	POWER MODULE	0.005	GRAPHITE	FIBERGLASS	NONE	BLACK	2.00	1.500	0.900
WTI6R0K0 - 0.75 X .050	WTI02	T0-220	0.006	SILICONE	KAPTON	NONE	GRAY	1.30	0.750	0.500
WTI9R0N0 - 0.75 X .050	WTI05	T0-220	0.009	SILICONE	NONE	NONE	PINK	1.00	0.750	0.500



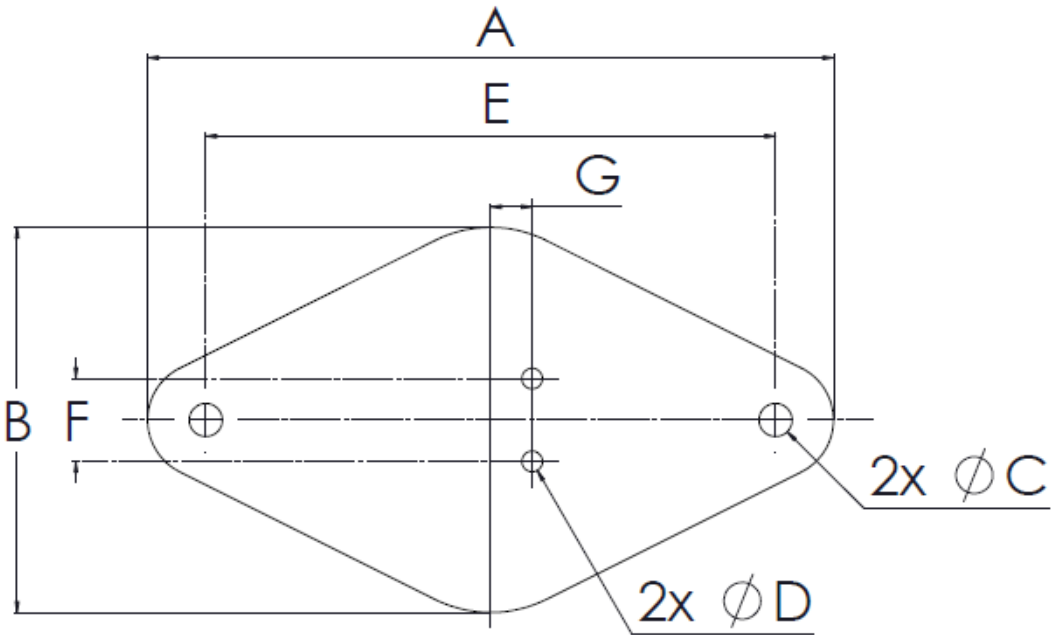


# DIAMOND-SHAPED WITH (4) HOLES

For Questions  
and More  
Information,  
**CONTACT  
WAKEFIELD**

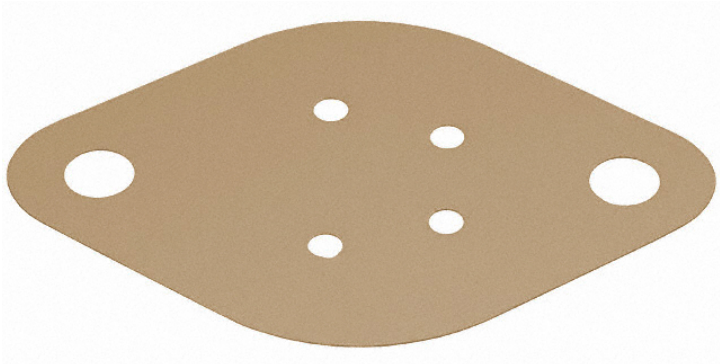


Wakefield Part Number	Wakefield Material Number	Application	Thickness (in)	Body Material	Backing Material	Adhesive	Color	Thermal Conductivity (W/m/K)	Dimensions (in) [see drawing view below]						
									A	B	C	D	E	F	G
WTC5D4F1 - 1.56 X 1.05	WTC00	TO-3	0.005	GRAPHITE	FIBERGLASS	1-SIDED	BLACK	2.00	1.563	1.050	0.140	0.140	1.187	0.430	0.072
WTI7D4F0 - 1.65 X 1.14	WTI01	TO-3	0.007	SILICONE	FIBERGLASS	NONE	GRAY	0.80	1.650	1.140	0.140	0.093	1.187	0.430	0.072
WTI9D4F0 - 1.56 X 1.05	WTI01	TO-3	0.009	SILICONE	FIBERGLASS	NONE	GRAY	0.80	1.563	1.050	0.140	0.080	1.187	0.430	0.072
WTI9D4F1 - 1.65 X 1.14	WTI01	TO-3	0.009	SILICONE	FIBERGLASS	1-SIDED	GRAY	0.80	1.650	1.140	0.140	0.093	1.187	0.430	0.072
WTI9D4F0 - 1.65 X 1.14	WTI01	TO-3	0.009	SILICONE	FIBERGLASS	NONE	GRAY	0.80	1.650	1.140	0.140	0.093	1.187	0.430	0.072
WTI9D4F1 - 1.78 X 1.25	WTI01	TO-3	0.009	SILICONE	FIBERGLASS	1-SIDED	GRAY	0.80	1.780	1.250	0.140	0.093	1.187	0.430	0.072
WTI6D4K0 - 1.65 X 1.14	WTI02	TO-3	0.006	SILICONE	KAPTON	NONE	GRAY	1.30	1.650	1.140	0.140	0.093	1.187	0.430	0.072

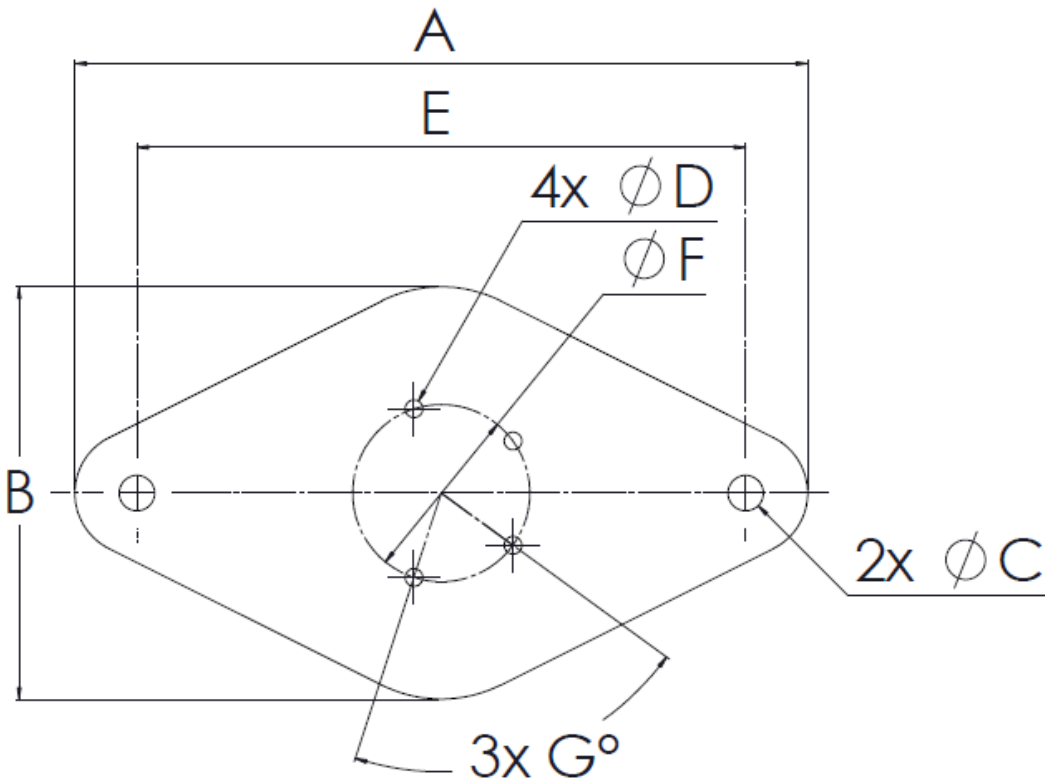


# DIAMOND-SHAPED WITH (6) HOLES

For Questions  
and More  
Information,  
**CONTACT  
WAKEFIELD**

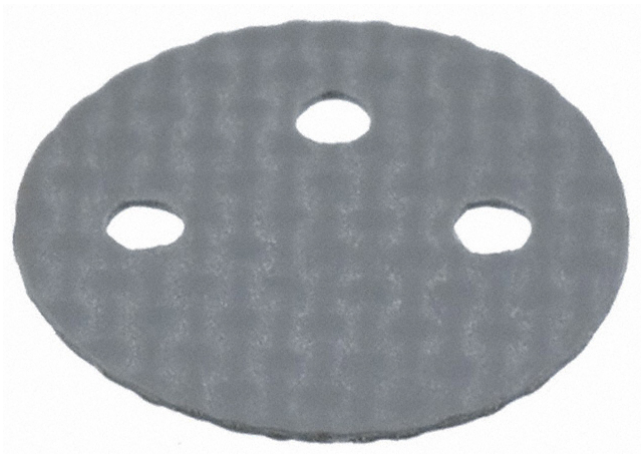


Wakefield Part Number	Wakefield Material Number	Application	Thickness (in)	Body Material	Backing Material	Adhesive	Color	Thermal Conductivity (W/m/K)	Dimensions (in) [see drawing view below]						
									A	B	C	D	E	F	G
WTI6D6KO-1.56 X 1.05	WTI02	TO-3	0.006	SILICONE	KAPTON	NONE	GRAY	1.30	1.560	1.050	0.156	0.080	1.170	0.470	72°

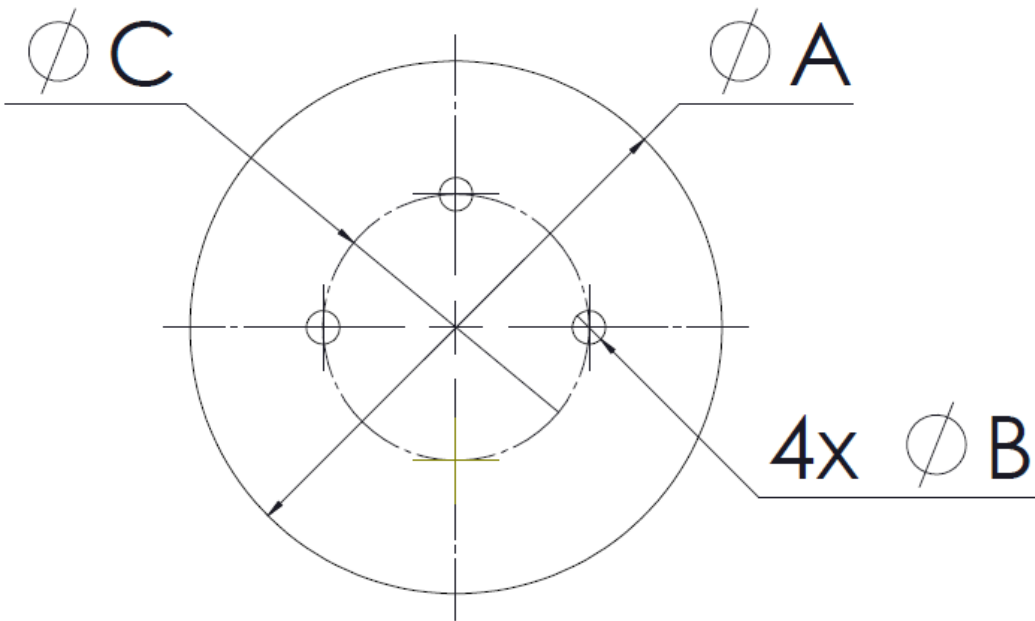


# CIRCULAR WITH (3) HOLES

For Questions  
and More  
Information,  
**CONTACT  
WAKEFIELD**



Wakefield Part Number	Wakefield Material Number	Application	Thickness (in)	Body Material	Backing Material	Adhesive	Color	Thermal Conductivity (W/m/K)	Dimensions (in)		
									A	B	C
WTI9C3FO - 0.36 OD	WTI01	T0-5	0.009	SILICONE	FIBERGLASS	NONE	GRAY	0.80	0.360	0.040	0.200

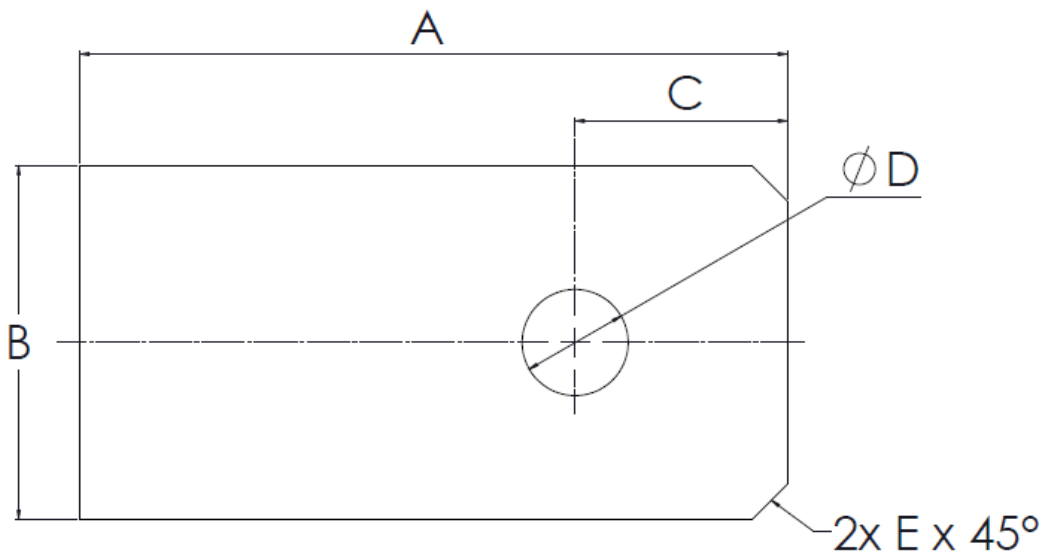


# RECTANGULAR WITH (1) HOLE, (2) CHAMFERS

For Questions  
and More  
Information,  
**CONTACT  
WAKEFIELD**



Wakefield Part Number	Wakefield Material Number	Application	Thickness (in)	Body Material	Backing Material	Adhesive	Color	Thermal Conductivity (W/m/K)	Dimensions (in) [see drawing view below]				
									A	B	C	D	E
WTI10R1F1 - 0.87 X 0.79	WTI06	TO-220	0.010	SILICONE	FIBERGLASS	1-SIDED	WHITE	3.50	0.872	0.790	0.160	0.148	0.118

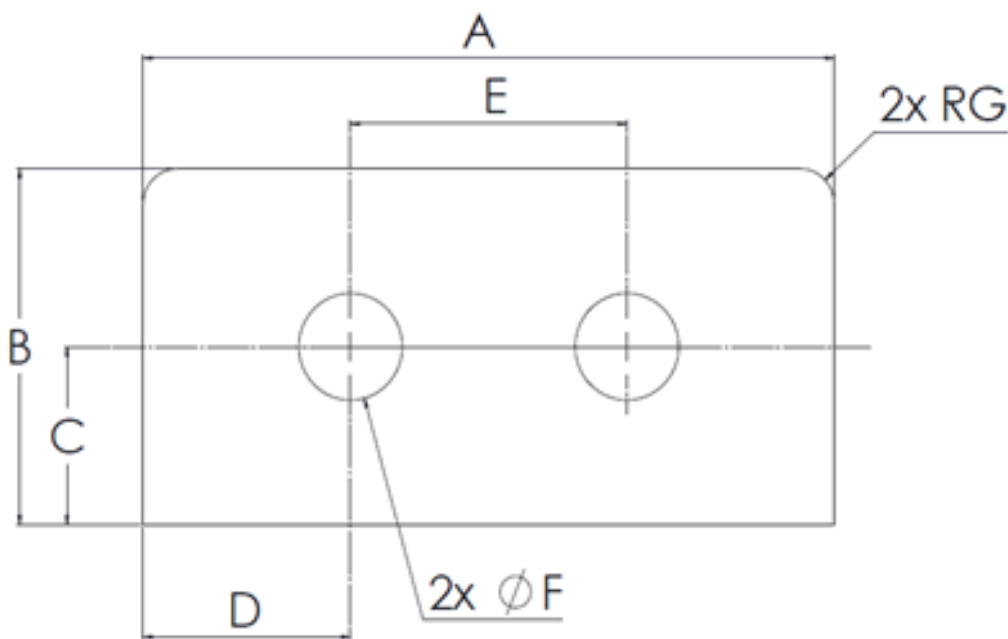


# RECTANGULAR WITH (2) HOLES, (2) ROUNDS

For Questions  
and More  
Information,  
**CONTACT  
WAKEFIELD**



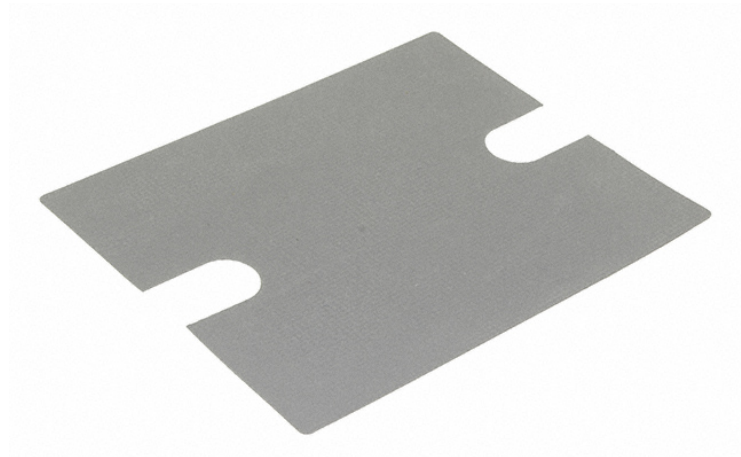
Wakefield Part Number	Wakefield Material Number	Application	Thickness (in)	Body Material	Backing Material	Adhesive	Color	Thermal Conductivity (W/m/K)	Dimensions (in) [see drawing view below]						
									A	B	C	D	E	F	G
WTI6R2KO-1.45 X 0.84	WTI02	VARIOUS	0.006	SILICONE	KAPTON	NONE	BEIGE	1.30	1.450	0.840	0.612	0.245	0.960	0.170	0.120



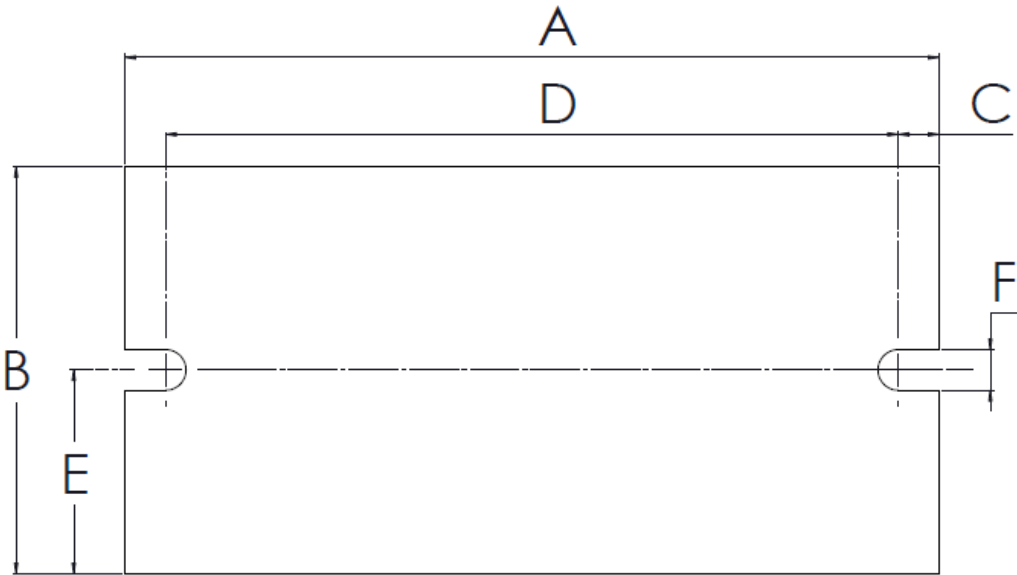


# RECTANGULAR WITH (2) SLOTS

For Questions  
and More  
Information,  
**CONTACT  
WAKEFIELD**



Wakefield Part Number	Wakefield Material Number	Application	Thickness (in)	Body Material	Backing Material	Adhesive	Color	Thermal Conductivity (W/m/K)	Dimensions (in) [see drawing view below]					
									A	B	C	D	E	F
WTC5R0F0 - 2.50 X 2.00	WTC00	POWER MODULE	0.005	GRAPHITE	FIBERGLASS	NONE	BLACK	2.00	2.500	2.000	0.344	1.812	1.000	0.156
WTI9R0F1 - 2.50 X 2.00	WTI01	POWER MODULE	0.009	SILICONE	FIBERGLASS	1-SIDED	GRAY	0.90	2.500	2.000	0.344	1.812	1.000	0.312



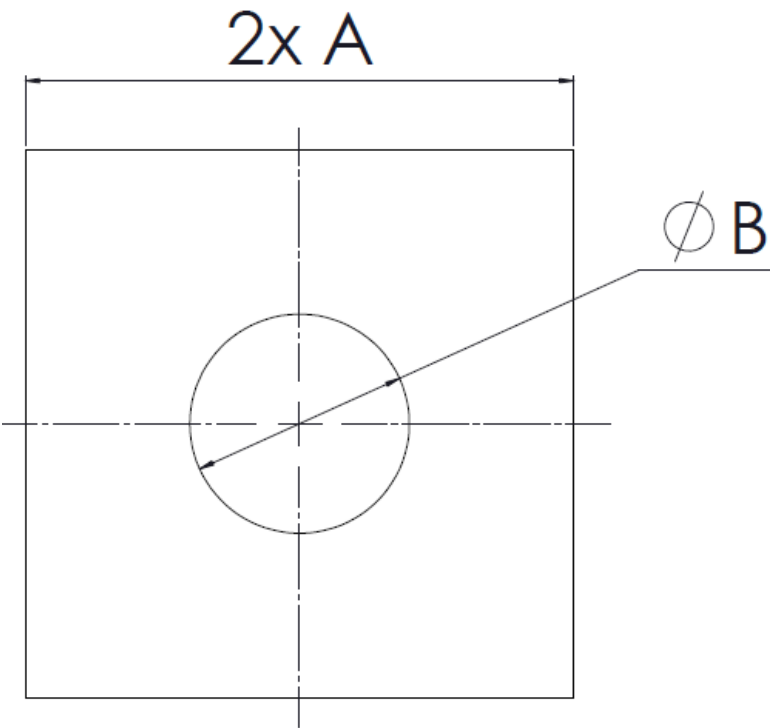
# SQUARE WITH (1) HOLE

For Questions  
and More  
Information,

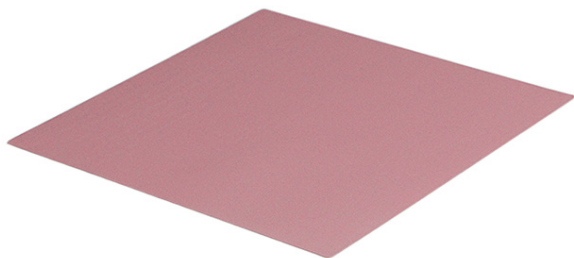
**CONTACT  
WAKEFIELD**



Wakefield Part Number	Wakefield Material Number	Application	Thickness (in)	Body Material	Backing Material	Adhesive	Color	Thermal Conductivity (W/m/K)	Dimensions (in)	
									A	B
WTC5S1F0 - 1.00 X 1.00	WTC00	RECTIFIER	0.005	GRAPHITE	FIBERGLASS	NONE	BLACK	2.00	1.000	0.187
WTC5S1A1 - 1.25 X 1.25	WTC00	RECTIFIER	0.005	GRAPHITE	ALUMINUM	1-SIDED	WHITE	3.00	1.250	0.200
WTC5S1F0 - 1.25 X 1.25	WTC00	RECTIFIER	0.005	GRAPHITE	FIBERGLASS	NONE	BLACK	2.00	1.250	0.200



# SQUARE WITHOUT HOLES



For Questions  
and More  
Information,

**CONTACT  
WAKEFIELD**

Wakefield Part Number	Wakefield Material Number	Application	Thickness (in)	Body Material	Backing Material	Adhesive	Color	Thermal Conductivity (W/m/K)	Dimension (in) [see drawing view below]
									A
WTC5SOF1 - 12 X 12	WTC00	CUT TO SIZE	0.005	GRAPHITE	FIBERGLASS	1-SIDED	BLACK	2.00	12.0
WTC6SOA1 - 12 X 12	WTC00	CUT TO SIZE	0.006	GRAPHITE	ALUMINUM	1-SIDED	BLACK	2.50	12.0
WTI7SOF1 - 12 X 12	WTI01	CUT TO SIZE	0.007	SILICONE	FIBERGLASS	1-SIDED	GRAY	0.80	12.0
WTI9SOF0 - 12 X 12	WTI01	CUT TO SIZE	0.009	SILICONE	FIBERGLASS	NONE	GRAY	0.80	12.0
WTI9SOF1 - 12 X 12	WTI05	CUT TO SIZE	0.009	SILICONE	FIBERGLASS	1-SIDED	PINK	1.60	12.0
WTI10SOF0 - 12 X 12	WTI06	CUT TO SIZE	0.010	SILICONE	FIBERGLASS	NONE	WHITE	3.50	12.0
WTI10SOF1 - 12 X 12	WTI06	CUT TO SIZE	0.010	SILICONE	FIBERGLASS	1-SIDED	WHITE	3.50	12.0
WTI15SOF0 - 12 X 12	WTI06	CUT TO SIZE	0.015	SILICONE	FIBERGLASS	NONE	WHITE	3.50	12.0
WTI15SOF1 - 12 X 12	WTI06	CUT TO SIZE	0.015	SILICONE	FIBERGLASS	1-SIDED	WHITE	3.50	12.0
WTI20SOF1 - 12 X 12	WTI06	CUT TO SIZE	0.020	SILICONE	FIBERGLASS	1-SIDED	WHITE	3.50	12.0
WTI20SOF0 - 12 X 12	WTI06	CUT TO SIZE	0.020	SILICONE	FIBERGLASS	NONE	WHITE	3.50	12.0

2x A

