100mm 100mm Sheet		Price Each		
Thickness	**Order Code**	1+	5+	10+
Gap Pad Vo				
1.5mm	**681-143**			
2.0mm	**936-728**			
3.2mm	**681-155**			
4.0mm	**936-730**			
Gap Pad VO Soft				
1.5mm	**168-830**			
3.2mm	**168-841**			
Gap Pad 1500				
1.5mm	**168-853**			
3.2mm	**168-865**			
4.0mm	**168-877** †			
Gap Pad 200				
1.5mm	**168-889**			
3.2mm	**168-907**			
6.3mm	**168-919**			

† Available until stocks are exhausted

Transistor Insulating Tubes

Warth International Ltd

TO-220 L = 25, Dia. = 10
TO-218/247/3P L = 30, Dia. = 13

A simple and safe method of isolating power devices. The transistor is inserted into the flexible tube, which is then clipped on to a suitable heatsink. Electrical isolation is greatly improved compared to traditional screw mounting techniques.

Thickness	0.6 max.	Thermal conductivity	0.7 $Wm^{-1} K^{-1}$
Breakdown voltage	8KV	Elongation	115%
Thermal resistance	0.92°C/W	Temperature range	-55° to +180°C

FOR SUITABLE TRANSISTOR CLIPS SEE ORDER CODES 557-729 & 557-730, **PAGE 463**

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Order Multiple=10			Price Each			
Package	Mftrs. List No.	**Order Code**	10+	250+	1K+	10K+
TO-220	THER-T-SMALL	**547-566**				
TO-218/TO-247						
TO-3P	THER-T-LARGE	**547-578**				

Kool-Pad®
Thermally Conductive Sheet

Warth International Ltd

- Cut-to-shape 300mm 300mm sheets
- Thermal resistance (TO-3) 0.4° C/W (151-085), 0.23° C/W (279-900)
- Electrically insulating to 4kV (151-085),kV (279-900)
- Silicon rubber/fibre glass, **UL94V-0** rated
- -60°C to +180°C operating temperature
- Thickness 0.18mm (151-085), 0.2mm (279-900)

Mftrs. List No. K177-NA-30 30 = 151-085, K200-NA-30 30 = 279-900

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	Price Each			
Order Code	1+	5+	25+	100+
.151-085				
279-900				

Self-Adhesive, Thermally Conductive Sheet

Warth International Ltd

- Eliminates mechanical clamping to heatsinks
- Cut-to-shape 300mm 300mm sheets
- Heat curable, adhesive coated on both sides
- 0.49° C/W thermal resistance (T0-3)
- Electrically conductive aluminium foil base
- -20°C to +155°C operating temperature
- Thickness 0.14mm

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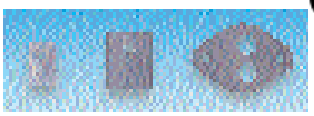
		Price Each			
Mftrs. List No.	**Order Code**	1+	5+	25+	100+
KA150-2AC-30X30	**557-742**				

Conductive Thermal Pads

Warth International Ltd



- Dry alternative to grease
- 'Zemrex CM20' material
- **Electrically conductive**
- Resistant to most solvants
- Non-contaminating to solder baths

Thermal resistance (TO-3)	0.05°C/W	Operating temperature	-200°C to +500°C
Thermal conductivity	0.012 cal/cm sec °C	Volume resistivity	$10^{-3}\Omega$cm

Mftrs. List No. CM20-NA-314 = 522-661, CM20-NA-403 = 522-673, CM20-NA-213 = 522-685

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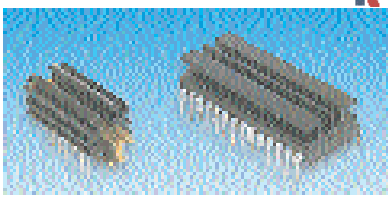
Order Multiple=50			Price Each	
Type	**Order Code**	**50+**	**250+**	**5K+**
TO-220	**.522-661**			
Order Multiple=10		**10+**	**500+**	**1K+**
TO-3P	**.522-673**			
TO-3	**.522-685**			

Heatsinks

Note: Heatsinks are black anodised unless otherwise stated.

Dual-in-Line

Redpoint Thermalloy Ltd



0.6" (15.24mm) wide DIL
(Bond On) H = 4.8, W = 13.5,
L = see below

175-010 24 pin, L = 30.5
175-012 40 pin, L = 50.8

0.3" (7.62mm) wide
170-755, **14/16 pin DIL**
H=7.3, W=10.5, L=31.9 (inc. clip)

Mftrs. List No. DIP1490 = 170-755, DIP1495 = 175-010, DIP1497 = 176-012

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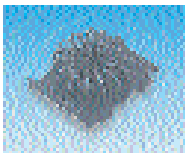
Order Multiple=5			Price Each	
Thermal Resistance	**Order Code**	5+	100+	500+
31°C/W	**.170-755**			
25°C/W	**.175-010**			
20°C/W	**.175-012**			

Chip Carrier

Redpoint Thermalloy Ltd



JEDEC A&D 68 and 132 Pin Leadless Chip Carriers and 68 pin Leaded Quad Packages
(Bond On) **9.3°C/W**
Matt black paint finish
H = 9, Dia = 24, Base = 18 sq

Mftrs. List No. CP68 = 175-006.

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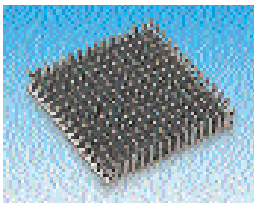
	Price Each			
Order Code	1+	25+	100+	1K+
175-006				

Pin Grid Array, 17 x 17

IMI Marston



H = 8.9, W = 48.0, D = 48.0

Suitable for pin grid array packages on 17 17 matrix (45mm square), for example Intel i486 50MHz microprocessor. Flat pin design for maximum efficiency, utilises air flow from any direction. Fitted with heat conductive adhesive tape for easy attachment.

Thermal resistance 8.0°C/W (natural convection)
2.5°C/W (air velocity 122m per minute)

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		Price Each			
Mftrs. List No.	**Order Code**	1+	20+	100+
CP51035/3	**265-615**			

continued