

- 2. ROHS COMPLIANT PER CST-0001 LATEST REVISION.
- 3. THE SOLDERING METHOD USED FOR CHIPS (AND OPTIONAL HEATSINK GROUNDING) IS IMPORTANT WHEN SELECTING A THERMAL INTERFACE MATERIAL (TIM). THE PHASE-CHANGE TIM SHOWN IN THESE ILLUSTRATIONS MAY BE DAMAGED BY TEMPERATURES OVER 125C, SO TWO ASSEMBLY PROCEDURES ARE DESCRIBED BELOW: (A) FOR HAND-SOLDERING ONLY, (B) FOR WAVE-SOLDERING AND/OR HAND-SOLDERING.
- (A) PLACE BOTTOM-SIDE HEATSINK (WITH PRE-ATTACHED PHASE-CHANGE TIM) ON PCB.
  PLACE CHIP AND TOP-SIDE HEATSINK (WITH PRE-ATTACHED TIM AND GROUNDING TABS).
  WHILE SUPPORTING PCB, INSERT PLASTIC PUSH-PINS THROUGH BOTH HEATSINKS AND PCB.
  (SELECT PROPER PUSH-PIN LENGTH FROM TABLE ON THIS DRAWING.)
  IMPORTANT: TO SET FINAL THICKNESS OF PHASE-CHANGE TIM ENSURE THAT THE ENTIRE ASSEMBLY IS RAISED ABOVE 65C FOR SEVERAL MINUTES.
  HAND-SOLDER ALL CHIP AND GROUNDING PINS. ADDITIONAL SOLDERING IRON HEAT MAY BE REQUIRED TO COMPENSATE FOR LOSSES TO THE HEATSINKS.
- (B) WAVE SOLDERING TEMPERATURES ARE UNSUITABLE FOR PLASTIC PUSH-PINS AND PHASE-CHANGE TIM, SO VICOR TIM 40325 (PARKER CHOMERICS GEL8010) IS RECOMMENDED. APPLY A UNIFORM .003" (.076MM) LAYER OF TIM 40325 TO THE TOP AND BOTTOM SURFACE OF THE CHIP, OR TO THE CORRESPONDING HEATSINK SURFACES. PLACE BOTTOM-SIDE HEATSINK, CHIP, AND TOP-SIDE HEATSINK ON PCB. WITH A CUSTOM FIXTURE APPLY APPROX. 10 LBS LOAD TO THE TOP-SIDE HEATSINK AND THEN WAVE-SOLDER ALL PINS. REMOVE FIXTURE AND INSERT PLASTIC PUSH-PINS THROUGH BOTH HEATSINKS AND PCB. (SELECT PROPER PUSH-PIN LENGTH FROM TABLE ON THIS DRAWING.)
- 4. CARE SHOULD BE TAKEN TO AVOID FULLY COMPRESSING THE PUSH-PIN SPRING DURING INSTALLATION AS THIS WOULD EXPOSE THE CHIP TO FORCES GREATER THAN THE RECOMMENDED LIMIT OF 3.1 LBF (13.8 N) PER PUSH-PIN.

	HEATSINK TYPE	P/N ASSY HEATSINKS, TIM AND GROUND TAB	P/N ASSY HEATSINK W/GROUND TAB ONLY
SOLDERING METHOD (SEE NOTE 2)	-	2(A) HAND SOLDER ONLY	2(B) WITH VICOR 40325 THERMAL GEL
4623	DUAL 11MM	40519	40527
4023	DUAL 19MM	40408	-
/102	DUAL 11MM	40520	40528
6123	DUAL 19MM	40409	_

## HEATSINK OPTIONS

PUSH-PINS W/ SPRINGS (100/BAG)	COLOR	PCB THK NOMINAL RANGE	PCB THK MINIMUM	PCB THK MAXIMUM
32436	BLUE	1.143 MM TO 1.854 MM [.045"] TO [.073"]	1.041 MM [.041"]	2.057 MM [.081"]
32437	GRAY	1.880 MM TO 2.438 MM [.074"] TO [.096"]	1.676 MM [.066"]	2.692 MM [.106"]

## **PUSH-PIN SELECTION**

DRAWN BY	DATE			ΛΛ. VIC	OR	SWD
Robert Wasik	7/12/2013		_	<u> </u>		
UNLESS OTHERW DIMENSIONS ARE TOLERANCES A	: INCH / [MM]	A	PP DW	G. DUA	L HEATSINE	Κ.
DECIMALS X.XX [X.X] = ±0.01 [0 X.XXX [X.XX] = ±0.00	ANGLES 0.25] ±1°			<i>6123, 4</i>		-,
DECIMALS $X.XX[X.X] = \pm 0.01[0]$	ANGLES 0.25] ±1° 05 [0.127]	SIZE	CAGE CODE	•		REV
DECIMALS X.XX [X.X] = $\pm 0.01$ [0 X.XXX [X.XX] = $\pm 0.00$	ANGLES 0.25] ±1° 05 [0.127]	SIZE <b>D</b>		6123, 4		,

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