

- 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 (OR VICOR WAVESOLDER FIXTURE 40416, 40417) 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.
- 5. ROHS COMPLIANT PER CST-0001 LATEST REVISION.

	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
4/02	DUAL 11MM	40519	40526
4623	DUAL 19MM	40408	_
6123	DUAL 11MM	40520	40528
	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				^ ^ . V IC	COR	SWD
Robert Wasik	7/12/2013			_	///\\\\		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE: INCH / [MM] TOLERANCES ARE: DECIMALS ANGLES X.XX [X.X] = ±0.01 [0.25] ±1° X.XXX [X.XX] = ±0.005 [0.127]		APP DWG, DUAL HEATSINK, 6123, 4623					
THIRD ANGLE P	ROJECTION	SIZE	CAGE CO	DE	DWG NO		REV
<u> </u>		D	6713°	1		40191	1
DO NOT SCALE DRAWING		SCALE 3:1		SHEET 1 OF 1			