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REV.

DESCRIPTION

INTL

DATE

APVD

1

RELEASED PER E141039

SJW

09/03/14

RH

2

REVISED PER E200529

DKT

10/19/20

RLT

3623 CHIP SHOWN HERE

THERMAL INTERFACE
SEE NOTE 3(A) OR 3(B)

SCREW, PHILLIPS, CHEESE HEAD
M2.5x0.45 X 6MM LG
INSTALLED FROM
BOTTOM SIDE OF PCB.
TORQUE TO 6 IN-LBS.
(2) PL.

BOTTOM HEATSINK
APPLICATION
SEE NOTE 3

SEE NOTE 4

PUSH-PINS
SEE NOTE 3.4
AND SELECTION TABLE

GROUNDING TABS
SOLDERED TO PCB

TOP HEATSINK
APPLICATION
SEE NOTE 3

3.20
[.126]

ASSEMBLED FRONT VIEW

NOTES:
1. FOR PCB LAYOUT SEE VICOR APPLICATION DRAWING 40438.
2. ROHS COMPLIANT PER CST-0001 LATEST REVISION.
3.
4. 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 PARKER CHOMERICS GEL8010 IS RECOMMENDED AS A TIM. APPLY A UNIFORM .003" (.076MM) LAYER OF TIM 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.)

5. 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 HEATSINK, TIM AND GROUND TAB	P/N HEATSINK W/GROUND TAB ONLY
SOLDERING METHOD (SEE NOTE 2)	-	2(A) HAND SOLDER ONLY	2(B) WITH VICOR 40325 THERMAL GEL
	3623	DUAL 11MM DUAL 19MM	40518 TBD

HEATSINK SELECTION

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	VICOR		SWD
Robert Wasik	09/06/2013			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE : INCH / (MM)		ASSY DWG DUAL HEATSINK 3623		
TOLERANCES ARE: DECIMALS ANGLES X.XX (X.X) = +0.01 (0.25) ±1° X.XXX (X.XX) = ±0.005 (0.127)		SIZE	CAGE CODE	DWG NO
THIRD ANGLE PROJECTION		D	67131	40190
DO NOT SCALE DRAWING		SCALE 3:1		REV 2
				SHEET 1 OF 1