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REV.

DESCRIPTION

INTL

DATE

APVD

1

RELEASED PER E140023a

GCK

01/13/2014

REW

2

REVISED PER E200529

DKT

10/19/20

RLT

SEE NOTE 3
(4) PL.

SEE NOTE 3
(4) PL.

SEE NOTE 3
(4) PL.

6123 CHIP SHOWN HERE

OPTIONAL
GROUNDING TABS (40247)
AND SCREWS (40327) (2) PL.
SEE NOTE 2 AND DRAWING 39983

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(4) PL.

OPTIONAL
GROUNDING TABS (40247)
AND SCREWS (40327) (2) PL.
SEE NOTE 2 AND DRAWING 39983

THERMAL
INTERFACE
MATERIAL

GROUND TABS
AND SCREWS
TORQUE M2 SCREWS
TO 2 IN-LB (.2 Nm)

ISO ASSY REF ONLY
LONGITUDINAL FLOW

ISO REF ONLY

BOTTOM VIEW

X-FLOW (XF)
(HEAT SINK ONLY SHOWN)

LONGITUDINAL FLOW (LF)
(HEAT SINK ONLY SHOWN)

11.000
[.43]

19.000
[.75]

APPLIES TO BOTH 11MM AND 19MM HEATSINKS

NOTES:

1. FOR PCB LAYOUT SEE VICOR APPLICATION DRAWING 39983.

2. 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 CHIP AND TOP-SIDE HEATSINK (WITH PRE-ATTACHED TIM AND GROUNDING TABS) ON PCB. WHILE SUPPORTING PCB, INSERT PLASTIC PUSH-PINS THROUGH HEATSINK AND PCB. (SELECT PROPER PUSH-PIN LENGTH FROM TABLE ON THIS DRAWING.) HAND-SOLDER CHIP AND GROUNDING PINS.

(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 SURFACE OF THE CHIP, OR TO THE BOTTOM SURFACE OF THE HEATSINK. PLACE CHIP ON PCB AND TOP-SIDE HEATSINK ON CHIP. WITH A CUSTOM FIXTURE APPLY APPROX. 10 LBS LOAD TO THE TOP-SIDE HEATSINK AND THEN WAVE-SOLDER ALL PINS. REMOVE FIXTURE AND, WHILE SUPPORTING PCB, INSERT PLASTIC PUSH-PINS THROUGH HEATSINK AND PCB. (SELECT PROPER PUSH-PIN LENGTH FROM TABLE ON THIS DRAWING.)

3. 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.

4. RoHS COMPLIANT PER CST-0001 LATEST REVISION.

PUSH-PIN FOR CHIP HEATSINK CHART

PUSH-PINS W/ SPRINGS (100/BAG)	COLOR	PCB THK NOMINAL RANGE	PCB THK MINIMUM	PCB THK MAXIMUM
32434	WHITE	1.143 MM TO 1.422 MM [.045"] TO [.056"]	1.016 MM [.040"]	1.575 MM [.062"]
32435	BLACK	1.448 MM TO 2.311 MM [.057"] TO [.091"]	1.295 MM [.051"]	2.565 MM [.101"]
32436	BLUE	2.337 MM TO 3.023 MM [.092"] TO [.119"]	2.083 MM [.082"]	3.353 MM [.132"]
32437	GRAY	3.048 MM TO 3.607 MM [.120"] TO [.142"]	2.743 MM [.108"]	3.988 MM [.157"]

	HEATSINK TYPE	P/N HEATSINK ONLY	P/N HEATSINK W/ TIM ONLY	P/N HEATSINK, TIM AND GROUND TAB	P/N HEATSINK W/GROUND TAB ONLY	
SOLDERING METHOD (SEE NOTE 2)	-	2(B) WITH VICOR 40325 THERMAL GEL	2(A) HAND SOLDER ONLY	2(A) HAND SOLDER ONLY	2(B) WITH VICOR 40325 THERMAL GEL	
	4623	XF 11MM	39970	40492	40140	40482
		LF 11MM	39969	40493	40144	40483
		XF 19MM	40431	TBD	40531	TBD
LF 19MM		40432	TBD	40532	TBD	
6123	XF 11MM	39972	40494	40141	40484	
	LF 11MM	39971	40495	40145	40485	
	XF 19MM	40406	TBD	40533	TBD	
	LF 19MM	40407	TBD	40534	TBD	

DRAWN BY

DATE

Robert Wasik

07/24/2013

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE : INCH / (MM)

TOLERANCES ARE:

DECIMALS

ANGLES

X.XX (X.X) = +0.01 (0.25)

X.XXX (X.XX) = +0.005 (0.127)

±1°

THIRD ANGLE PROJECTION

DO NOT SCALE DRAWING

SCALE 2:1

SHEET 1 OF 1

VICOR

APP DWG, CHIP PUSHPIN
TOPSIDE HS, 6123, 4623

40113

2