Thread Tracking Toolkit Show/Hide Account Look-Up Tool Thread ID: 1275709 **Account: TI EDUCATION** Region: DEF Company: Texas **TECHNOLOGY** Instruments Thread Status (Internal **Priority Notify Assign** only) qjwang@ti.com Normal Waiting for Customer > Email addresses entered Email addresses/lists above will receive a oneentered above will time email notifying receive a one-time email them of assignment to notifying them of this Responsible Organization this thread and will be thread. --[ASM] ASM-AUTO automatically email subscribed to all subsequent replies. Notes: Hi QJ, Do you have any knowledge on how ICC derated formula derived? Submit Click "Submit" button to save any changes above. This thread has been locked. If you have a related question, please click the "Ask a related question" button in the top right corner. The newly created question will be automatically linked to this question.

TMS5703135: maximum ICC derating formula



<u>Mastermind</u> 30265 points Texas Instruments

Part Number: TMS5703135

Other Parts Discussed in Thread: TMS570LC4357, RM57L843

2/29/24. 10:46 AM

. Hi,

the d/s listed for ICC (PBIST mode) max 700mA. There is a note that you can derate this max ICC with a lower TJ with following formula:

235 - 0.15 e0.0174 TJK

I do not know how to use this formula. Why 235 not 700mA?

Regards, Holger

5 months ago



jagadish gundavarapu 139.187.34.34 5 months ago Hi Holger,

TI_Mastermind 35695 points

We started working on your issue and will try to provide an update ASAP.

Thanks & regards, Jagadish.



HS FAE Germany 139.187.34.34 5 months ago in reply to jagadish gundavarapu any feedback?

Tl_Mastermind 30265 points



jagadish gundavarapu 139.187.34.35 <u>5 months ago in reply to HS FAE Germany</u> <u>TI_Mastermind</u> 35695 points Hi Holger,

As per my understanding the formula is not wrong and it should be 235.

I am confirming this from other Hercules devices.

I verified in other datasheets TMS570LC4357 and RM57L843





2/29/24. 10:46 AM) TMS5703135: maximum ICC derating formula - Arm-based microcontrollers - INTERNAL forum - Arm-b	acad microcontrollare
2/23/24, 10.40 AW) TW33703133. Maximum ICC defaulty formula - Ami-based inicrocontrollers - INTERNAL forum - Ami-b	aseu microcontrollers

As you can see here also, they are not using Max current. so, it should not be a typo. But i don't have any document or knowledge on how this formula derived.

--

Thanks & regards, Jagadish.



<u>HS FAE Germany</u> 139.187.34.34 <u>5 months ago in reply to jagadish gundavarapu</u> <u>TI_Mastermind</u> 30265 points Hi Jagadish,

so any clue how to use this formula to get the derived current? Or customer has to use the max current for choosing his LDO?

Regards, Holger



jagadish gundavarapu 139.187.34.35 <u>5 months ago in reply to HS FAE Germany</u> <u>TI_Mastermind</u> 35695 points HS FAE Germany said:

so any clue how to use this formula to get the derived current? Or customer has to use the max current for choosing his LDO?

I don't have any clue on how this formula derived.

I will ask QJ, who is expert in Hercules devices.

8

Connect with us

QJ Wang 139.187.34.34 5 months ago in reply to jagadish gundavarapu Hi Holger,

<u>TI__Guru****</u> 184936 points

I replied the email to you and our customer this morning. As mentioned in the email, I have scheduled a meeting with one of our design guy to review the number. Let us discuss it offline.

About TI			
Quick links			
Buying			

2/29/24, 10:46 AM

Texas Instruments has been making progress possible for decades. We are a global semiconductor company that designs, manufactures, tests and sells analog and embedded processing chips. Our products help our customers efficiently manage power, accurately sense and transmit data and provide the core control or processing in their designs.

Accessibility Cookie policy Privacy policy Terms of sale Terms of use Trademarks

Website feedback

© Copyright 1995-2024 Texas Instruments Incorporated. All rights reserved.

Previewing Staged Changes