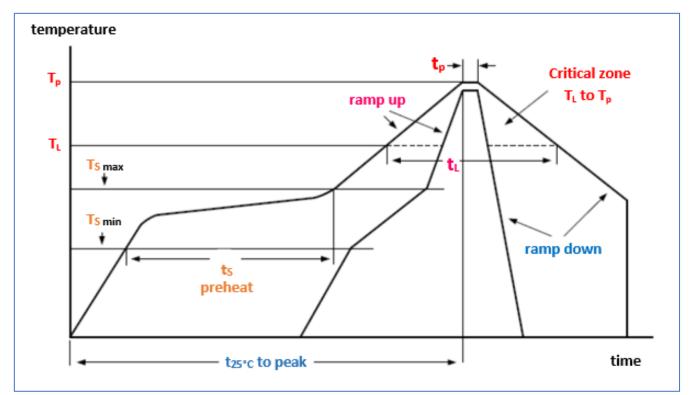




Recommended Reflow Soldering Profile

1. Reflow Soldering Profile



Profile Feature	SnPb eutectic assembly	Pb-free assembly
Average ramp-up rate (T _{S max} to T _P)	max 3°C/s	max 3°C/s
Preheat Temperature minimum (T s min)	100°C	150°C
Temperature maximum (T _{S max})	150°C	200°C
Time (t _{s min} to t _{s max})	60 - 120s	60 - 180s
Time maintained above		
Temperature (TL)	183°C	217°C
Time (t _L)	60 - 150s	60 - 150s
Peak Temperature (T _P)	220°C	245°C
Number of allowed reflow cycles	3	3
Time within 5°C of actual peak temperature (t_P)	10 - 30s	20 - 40s
Ramp-down rate	6°C/s maximum	6°C/s maximum
$t_{25^{\circ}C}$ to peak temperature	6 minutes maximum	8 minutes maximum

WAN009

Revision history

Rev	Date	Description
v.1	20191104	New format update

Contact information

For more information and sales office addresses please visit: <u>http://www.ween-semi.com</u>

WAN009

Legal information

Definitions

Draft — The document is a draft version only. The content is still under internal review and subject to formal approval, which may result in modifications or additions. WeEn Semiconductors does not give any representations or warranties as to the accuracy or completeness of information included herein and shall have no liability for the consequences of use of such information.

Disclaimers

Limited warranty and liability — Information in this document is believed to be accurate and reliable. However, WeEn Semiconductors does not give any representations or warranties, expressed or implied, as to the accuracy or completeness of such information and shall have no liability for the consequences of use of such information. WeEn Semiconductors takes no responsibility for the content in this document if provided by an information source outside of WeEn Semiconductors.

In no event shall WeEn Semiconductors be liable for any indirect, incidental, punitive, special or consequential damages (including - without limitation - lost profits, lost savings, business interruption, costs related to the removal or replacement of any products or rework charges) whether such damages are based on tort (including negligence), warranty, breach of contract or any other legal theory.

Notwithstanding any damages that customer might incur for any reason whatsoever, WeEn Semiconductors' aggregate and cumulative liability towards customer for the products described herein shall be limited in accordance with the *Terms and conditions of commercial sale* of WeEn Semiconductors.

Right to make changes — WeEn Semiconductors reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.

Suitability for use — WeEn Semiconductors products are not designed, authorized or warranted to be suitable for use in life support, life-critical or safety-critical systems or equipment, nor in applications where failure or malfunction of an WeEn Semiconductors product can reasonably be expected to result in personal injury, death or severe property or environmental damage. WeEn Semiconductors and its suppliers accept no liability for inclusion and/or use of WeEn Semiconductors products in such equipment or applications and therefore such inclusion and/or use is at the customer's own risk.

Applications — Applications that are described herein for any of these products are for illustrative purposes only. WeEn Semiconductors makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.

Customers are responsible for the design and operation of their applications and products using WeEn Semiconductors products, and WeEn Semiconductors accepts no liability for any assistance with applications or customer product design. It is customer's sole responsibility to determine whether the WeEn Semiconductors product is suitable and fit for the customer's applications and products planned, as well as for the planned application and use of customer's third-party customer(s). Customers should provide appropriate design and operating safeguards to minimize the risks associated with their applications and products.

WeEn Semiconductors does not accept any liability related to any default, damage, costs or problem which is based on any weakness or default in the customer's applications or products, or the application or use by customer's

third-party customer(s). Customer is responsible for doing all necessary testing for the customer's applications and products using WeEn

Semiconductors products to avoid a default of the applications and the products or of the application or use by customer's third-party customer(s). WeEn does not accept any liability in this respect.

Export control — This document as well as the item(s) described herein may be subject to export control regulations. Export might require a prior authorization from competent authorities.

Evaluation products — This product is provided on an "as is" and "with all faults" basis for evaluation purposes only. WeEn Semiconductors, its affiliates and their suppliers expressly disclaim all warranties, whether express, implied or statutory, including but not limited to the implied warranties of non-infringement, merchantability and fitness for a purpose. The entire risk as to the quality, or arising out of the use or performance, of this product remains with customer.

In no event shall WeEn Semiconductors, its affiliates or their suppliers be liable to customer for any special, indirect, consequential, punitive or incidental damages (including without limitation damages for loss of business, business interruption, loss of use, loss of data or information, and the like) arising out the use of or inability to use the product, whether or not based on tort (including negligence), strict liability, breach of contract, breach of warranty or any other theory, even if advised of the possibility of such damages.

Notwithstanding any damages that customer might incur for any reason whatsoever (including without limitation, all damages referenced above and all direct or general damages), the entire liability of WeEn Semiconductors, its affiliates and their suppliers and customer's exclusive remedy for all of the foregoing shall be limited to actual damages incurred by customer based on reasonable reliance up to the greater of the amount actually paid by customer for the product or five dollars (US\$5.00). The foregoing limitations, exclusions and disclaimers shall apply to the maximum extent permitted by applicable law, even if any remedy fails of its essential purpose.

Translations — A non-English (translated) version of a document is for reference only. The English version shall prevail in case of any discrepancy between the translated and English versions.

Trademarks

Notice: All referenced brands, product names, service names and trademarks are the property of their respective owners.

Contents

1. Reflow Soldering Profile	. 1	
Revision history and Contact information		
Legal information	. 3	
Definitions	. 3	
Disclaimers		
Trademarks	. 3	
Contents	. 4	

Please be aware that important notices concerning this document and the product(s) described herein, have been included in section 'Legal information.

© WeEn 2019.	All rights reserved	
For more information, please visit: <u>http://www.ween-semi.com</u>		
Date of release: 04 November 2019	Document identifier: WAN009_Rev01	