SLDV-THR 5.00/38/180FLF 3.2SN BK BX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
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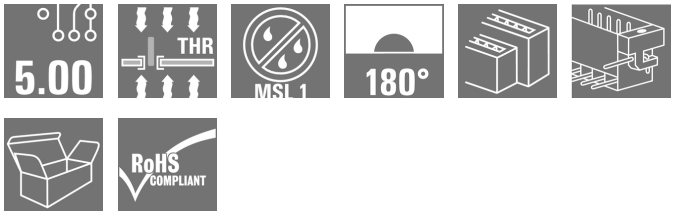
Germany

www.weidmueller.com

Product image

Similar to illustration



High-temperature resistant, double level, laterally offset, closed ended male header, with solder flange option. 1.5 mm solder pin suitable for reflow soldering. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded.

General ordering data

Version	PCB plug-in connector, male header, Flange / Solder flange, THT/THR solder connection, 5.00 mm, Number of poles: 38, 180°, Solder pin length (l): 3.2 mm, tinned, black, Box
Order No.	1883300000
Type	SLDV-THR 5.00/38/180FLF 3.2SN BK BX
GTIN (EAN)	4032248487653
Qty.	10 pc(s).
Product data	IEC: 400 V / 15 A UL: 300 V / 10 A
Packaging	Box

Creation date March 26, 2021 3:04:12 AM CET

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Technical data

Dimensions and weights

Depth	23.43 mm	Depth (inches)	0.922 inch
Height	29.36 mm	Height (inches)	1.156 inch
Height of lowest version	26.16 mm	Net weight	30.2 g
Width	105 mm	Width (inches)	4.134 inch

System specifications

Product family	OMNIMATE Signal - series BL/SL 5.00	Type of connection	Board connection
Mounting onto the PCB	THT/THR solder connection	Pitch in mm (P)	5 mm
Pitch in inches (P)	0.197 inch	Outgoing elbow	180°
Number of poles	38	Number of solder pins per pole	1
Solder pin length (l)	3.2 mm	Solder pin length tolerance	+0.1 / -0.2 mm
Solder pin dimensions	d = 1.2 mm, Octagonal	Solder pin dimensions = d tolerance	0 / -0,03 mm
Solder eyelet hole diameter (D)	1.5 mm	Solder eyelet hole diameter tolerance (D)	+ 0,1 mm
L1 in mm	90 mm	L1 in inches	3.543 inch
Number of rows	2	Pin series quantity	2
Touch-safe protection acc. to DIN VDE 57 106	finger-safe plugged/ back-of-hand-safe unplugged	Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged
Volume resistance	≤5 mΩ	Can be coded	Yes
Plugging force/pole, max.	9 N	Pulling force/pole, max.	8 N

Material data

Insulating material	LCP GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 175	Moisture Level (MSL)	1
UL 94 flammability rating	V-0	Contact material	CuSn
Contact surface	tinned	Layer structure of solder connection	1...3 µm Ni / 2...4 µm Sn matt
Layer structure of plug contact	1...3 µm Ni / 2...4 µm Sn matt	Storage temperature, min.	-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-50 °C
Operating temperature, max.	100 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	100 °C		

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	15 A
Rated current, max. number of poles (Tu=20°C)	10.5 A	Rated current, min. number of poles (Tu=40°C)	13 A
Rated current, max. number of poles (Tu=40°C)	9 A	Rated voltage for surge voltage class / pollution degree II/2	400 V
Rated voltage for surge voltage class / pollution degree III/2	320 V	Rated voltage for surge voltage class / pollution degree III/3	250 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	4 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	4 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	4 kV	Short-time withstand current resistance	1 x 1s with 120 A

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Technical data

Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	200039-1121690
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V
Rated current (Use group B / CSA)	10 A	Rated current (Use group D / CSA)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059

Institute (UR)		Certificate No. (UR)	E60693
Institute (cURus)		Certificate No. (cURus)	E60693
Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group D / UL 1059)	300 V
Rated current (Use group B / UL 1059)	10 A	Rated current (Use group D / UL 1059)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	47 mm
VPE width	123 mm	VPE height	177 mm

Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
ECLASS 9.0	27-44-04-02	ECLASS 9.1	27-44-04-02
ECLASS 10.0	27-44-04-02	ECLASS 11.0	27-46-02-01

Important note

IPC conformity	Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.
Notes	• Rated current related to rated cross-section & min. No. of poles. • Spacing between rows: see hole layout • P on drawing = pitch • Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards. • Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months

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Technical data

Approvals

Approvals	
ROHS	Conform
UL File Number Search	E60693

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	STEP

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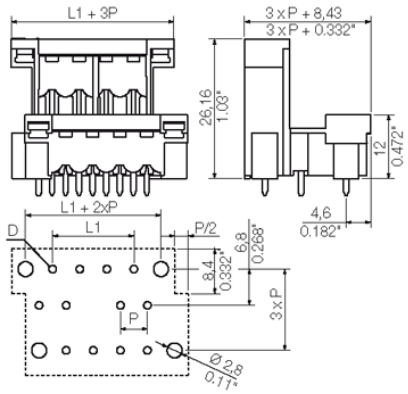
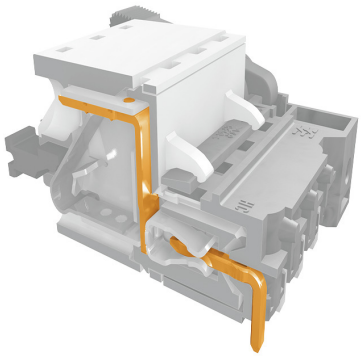
Drawings

Dimensional drawing



Product benefits



Safe power transmission
Proven properties

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Drawings

Product benefits

Compliant with existing standards

DIE DEUTSCHE VERSION IST VERBINDLICH
THE GERMAN VERSION IS BINDING

Technical Data

Rev.

Material data		
Insulation material type		LCP GF
Insulation material colours		black
Insulation material flammability class	UL94	V-0
Insulation resistance	MOhm	10^5
Contact base material		CuSn
Contact plating (mating end)		tin plated
Contact plating (solder end)		tin plated

System characteristic values	together with counterpart	BLZ 5.00	
Pitch **P**	mm/inch	5.00/0.197	
Number of rows		2	
Dielectric strength (r.m.s withstand voltage)	kV	4	
Mechanical operating cycles	acc. to IEC 512	25	
Plug in force (max.)	N/pole	n.a.	
Pull out force (max.)	N/pole	n.a.	
Through resistance (typical)	mOhm	<5	
Operating temperature range	°C	-55...+100	1)
Degree of protection acc. to VDE 0106 (plugged/unplugged)		back of hands	7)
Degree of protection acc. to DIN EN 60529 (plugged/unplugged)		IP10	8)
Solder pin length **L**	mm/inch	3.2/0.126 ; 1.5/0.059	
PCB hole diameter **D** (wave soldering)	mm/inch	1.4/0.055	2)
PCB hole diameter **D** (reflow soldering)	mm/inch	1.5/0.059	3)
Resistance to soldering heat acc. to DIN IEC 60512-6	°C/sec	260/5	4)
Resistance to soldering heat acc. to EN 61760-1	°C/sec	290/30	5)
Solderability classification acc. to EN 61760-1		class A	
Solder connection type		through hole solder	
Solder pin diameter **d** (max.)	mm/inch	1.2/0.047	

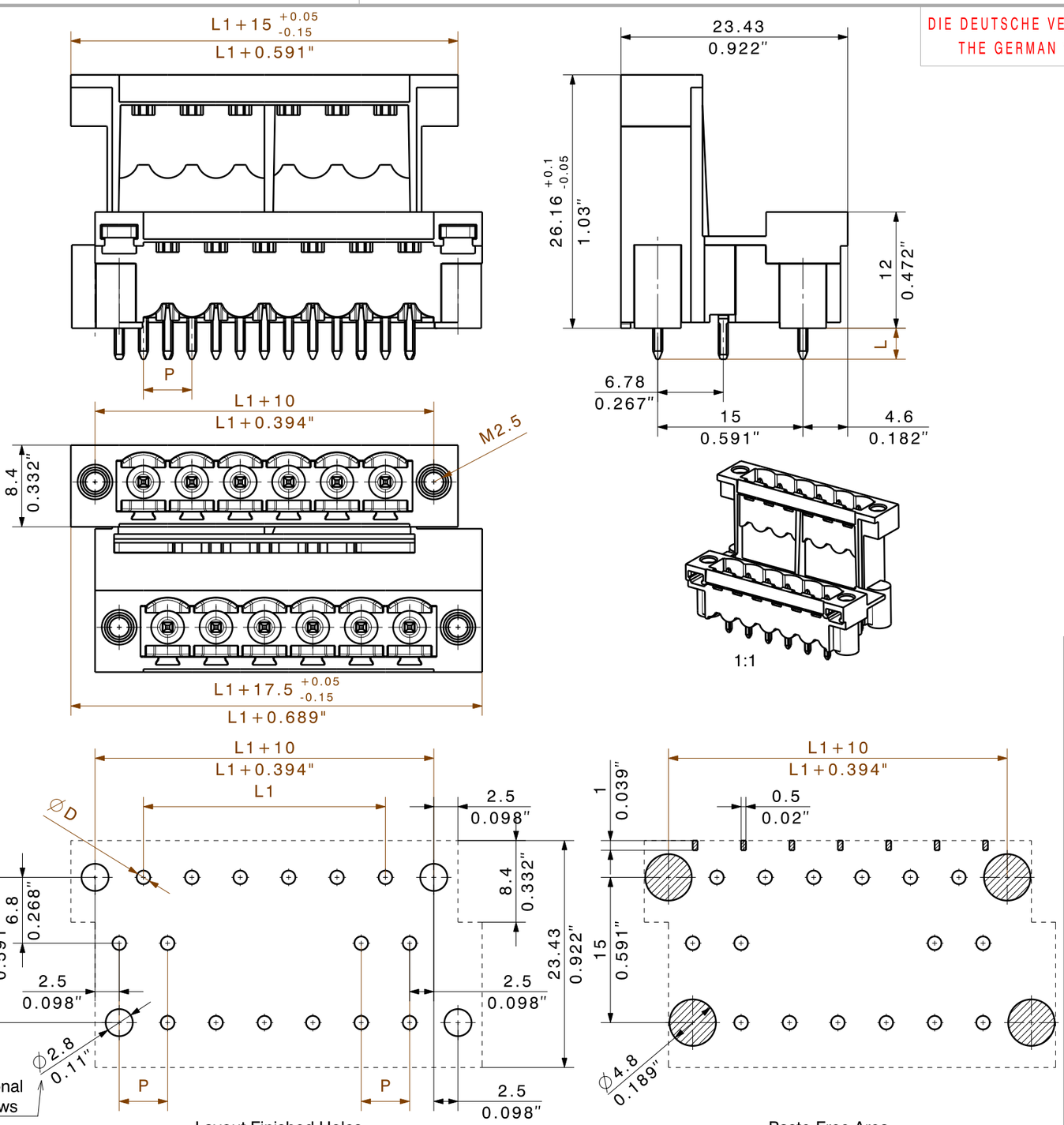
Application notes		
Coding possibility	yes/no	yes
Joinable without loss of pitch	yes/no	n.a.
Manual assembly of modules	yes/no	n.a.
Max. number of poles	n	48

IEC 664-1 / VDE0110 (4.97) rated data				
Rated cross section acc. to EN 60999	mm^2	n.a.		
Rated current @ 20°C ambient (together with BLZ5.08)	A	18.6		6)
Rated current @ 40°C ambient (together with BLZ 5.08)	A	16.1		6)
Overvoltage category / Pollution degree		**III/3**	**III/2**	**II/2**
Rated voltage	V	250	320	400
Rated impulse voltage	kV	4.0	4.0	4.0

UL 1059 rated data — File No.: E60693		B	C	D
Rated voltage	V	300		300
Rated current	A	10		10
AWG wire range (field wiring / factory wiring)		n.a.		

CSA C22.2 rated data — File No.: 12400(1308147)		B	C	D
Rated voltage	V	300		300
Rated current	A	10		10
AWG wire range (field wiring / factory wiring)		n.a.		

Packaging	carton
Downloads	www.weidmueller.de



n	L1 [mm]	L1 [inch]
48	115,00	4,53
46	110,00	4,33
44	105,00	4,13
42	100,00	3,94
40	95,00	3,74
38	90,00	3,54
36	85,00	3,35
34	80,00	3,15
32	75,00	2,95
30	70,00	2,76
28	65,00	2,56
26	60,00	2,36
24	55,00	2,17
22	50,00	1,97
20	45,00	1,77
18	40,00	1,57
16	35,00	1,38
14	30,00	1,18
12	25,00	0,98
10	20,00	0,79
8	15,00	0,59
6	10,00	0,39
4	5,00	0,20

1) Sum of ambient temperature and temperature rise
2) Recommendation for manual assembly
3) Recommendation for automatic assembly
4) Recommendation for wave soldering
5) Recommendation for reflow soldering
6) Referred to rated cross section and minimum pole number
7) Fingersafe above PC-board, if plugged with BLZ
8) IP20 above PC-board, if plugged with BLZ

n.a. = not applicable

Subject to technical changes

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The neccessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

shown: SLDV-THR 5.00/12/180FLF

METRIC TOLERANCES
X. = ±0.3
X.X = ±0.1
X.XX = ±0.05

RoHS ☑

37601/5 07.09.07 HERTEL_S 01
MODIFICATION

	DATE	NAME
DRAWN	04.08.2004	HERTEL_S
RESPONSIBLE		
CHECKED	13.09.2007	HERTEL_S
APPROVED		

SCALE: 2:1
SUPERSEDES:
SUPERSEDED BY:

CAT.NO.:

Weidmüller

C 36148 02
DRAWING NO. ISSUE NO.
SHEET 5 OF 6 SHEETS

SLDV-THR 5.00/../180 FLF
Stiftleiste
Pin header

PRODUCT FILE: SLDV-THR 5.08 None

Wave Solder Profile

Recommended wave solderding profiles

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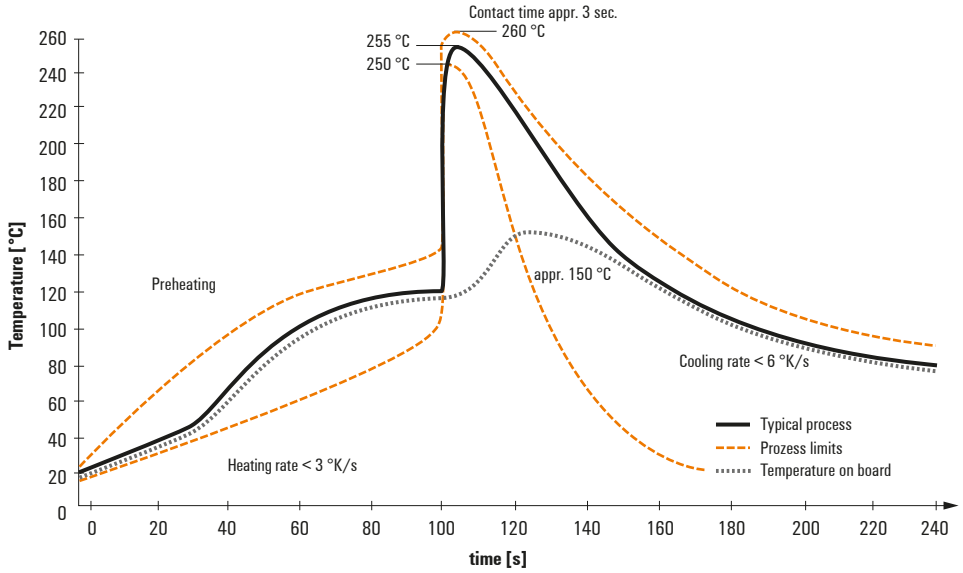
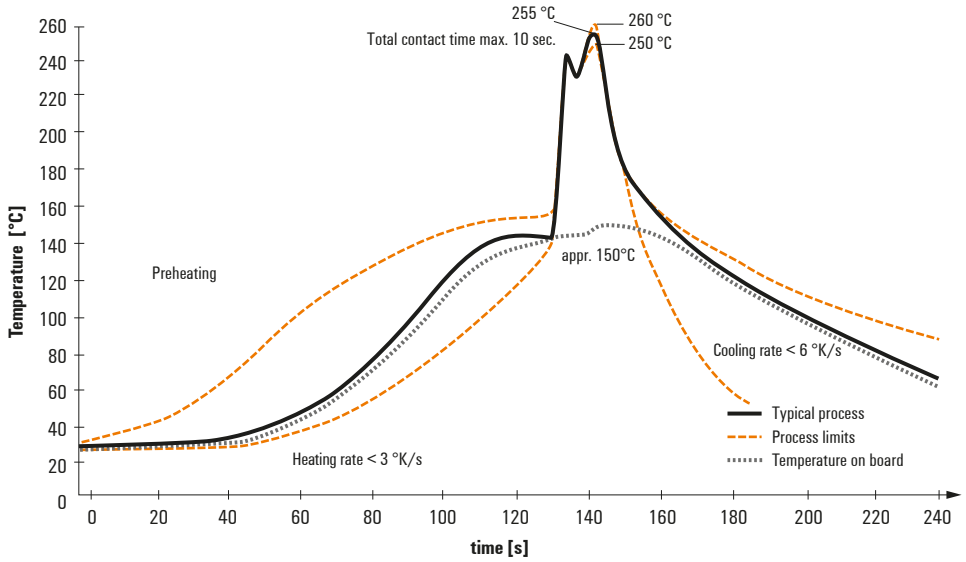
Single Wave:



Double Wave:



Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:
- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.

Reflow Solder Profile

Recommended reflow soldering profile

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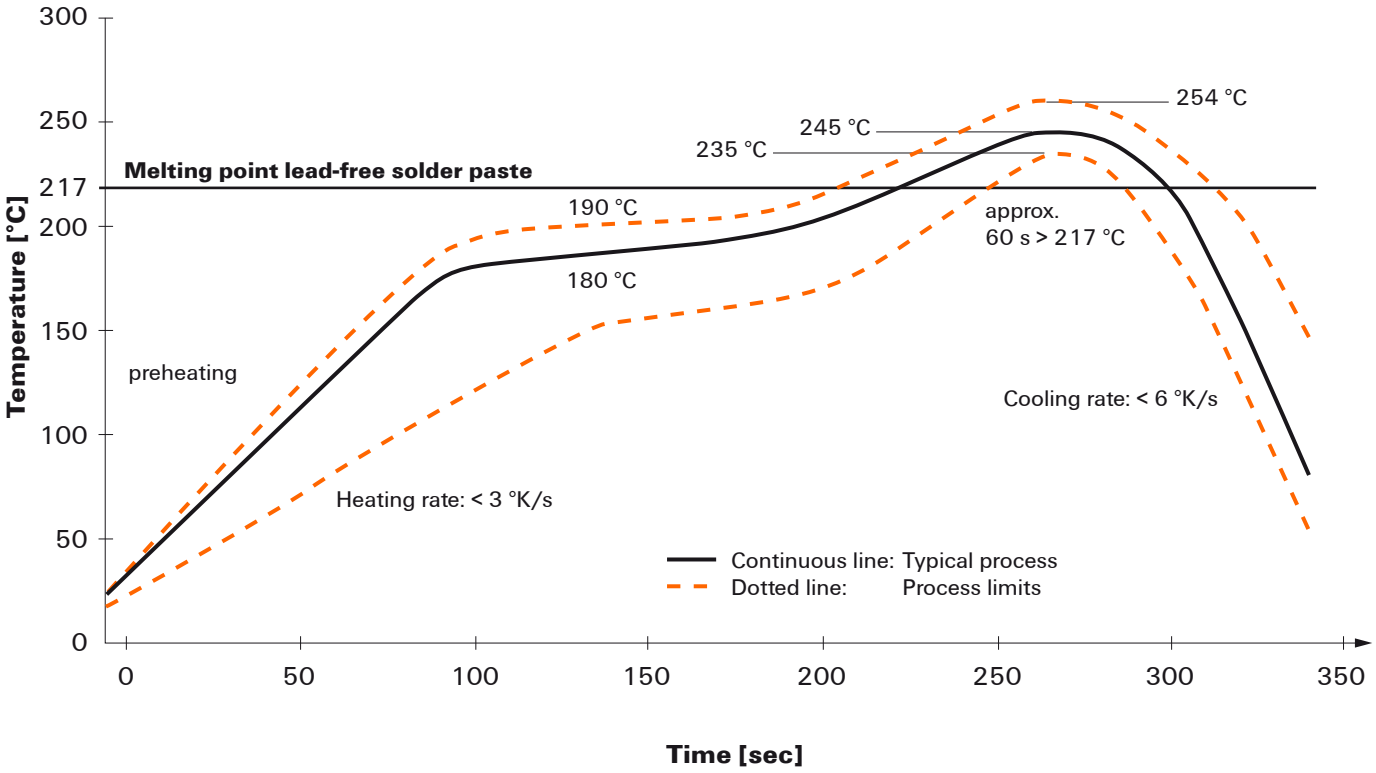

Reflow soldering profile

The perfect soldering profile for SMT Surface Mount Technology is one the most exiting question in SMT production. But there are more than one correct answer: The diagram of temperature-on-time is related to processing features of solder paste and to maximum load of components.

We have to consider the following parameters:
- Time for pre heating
- Maximum temperature
- Time above melting point
- Time for cooling
- Maximum heating rate
- Maximum cooling rate

We recommend a typical solder profile with associated process limits. With preheating components and board are prepared smoothly for the solder phase. Heating rate is typically ≤ +3K/s. In parallel the solder paste is ‚activated'. The time above melting point of 217°C the paste gets liquid and components and boards begin to connect. The maximum temperature of 245°C to 254°C should stay between 10 and 40 seconds. In the cooling phase at ≥ -6K/s solder is cured. Board and components cool down while avoiding cold cracks.