

# DATA SHEET

## **Gapped SMD beads** **Soft Ferrites**

New data

2004 Nov 01

Soft Ferrites

Gapped SMD beads

GAPPED SMD BEADS FOR POWER INDUCTORS

General data

ITEM	SPECIFICATION
Strip material	copper (Cu), tin (Sn) plated
Solderability	"IEC 60068-2-58", Part 2, Test Ta, method 1
Taping method	"IEC 60286-3", "EIA 481-1" and "EIA 481-2"

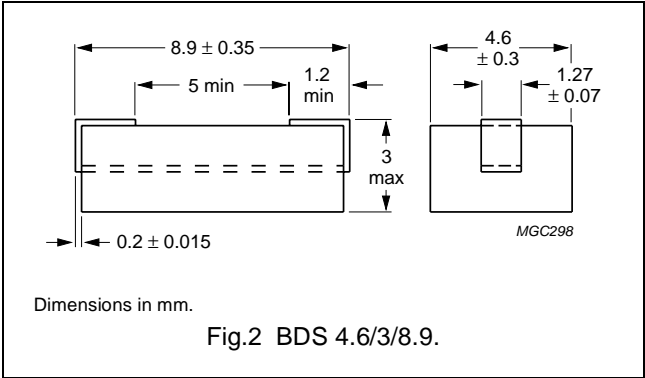
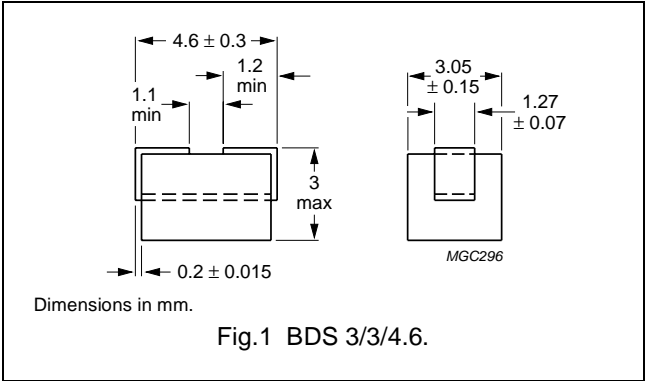
Grades, parameters and type numbers

GRADE	L at 1 MHz (nH)	I <sub>max</sub> <sup>(1)</sup> (A)	TYPE NUMBER
<b>BDS 3/3/4.6; mass ≈ 0.15 g <sup>(2)</sup></b>			
3C96	50 ± 20 %	20	BDS3/3/4.6-3C96-A50
	75 ± 20 %	15	BDS3/3/4.6-3C96-A75
<b>BDS 4.6/3/8.9; mass ≈ 0.5 g <sup>(3)</sup></b>			
3C96	100 ± 20%	20	BDS4.6/3/8.9-3C96-A100
	150 ± 20%	20	BDS4.6/3/8.9-3C96-A150

Note

1. I<sub>max</sub> is the saturation rated current.
2. DC resistance <0.6 mΩ.
3. DC resistance <1.0 mΩ

Mechanical data



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RECOMMENDED DIMENSIONS OF SOLDER LANDS

Table 1 Reflow soldering

SIZE	DIMENSIONS (mm)			
	A	B	C	D
BDS 3/3/4.6	2.8	6.4	1.8	3.3
BDS 4.6/3/8.9	7.0	10.8	1.9	3.3

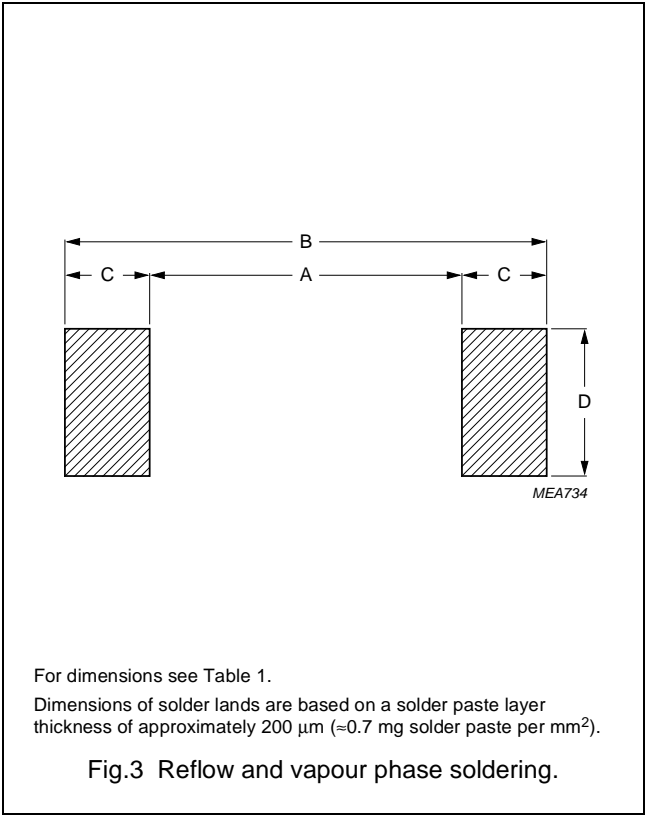
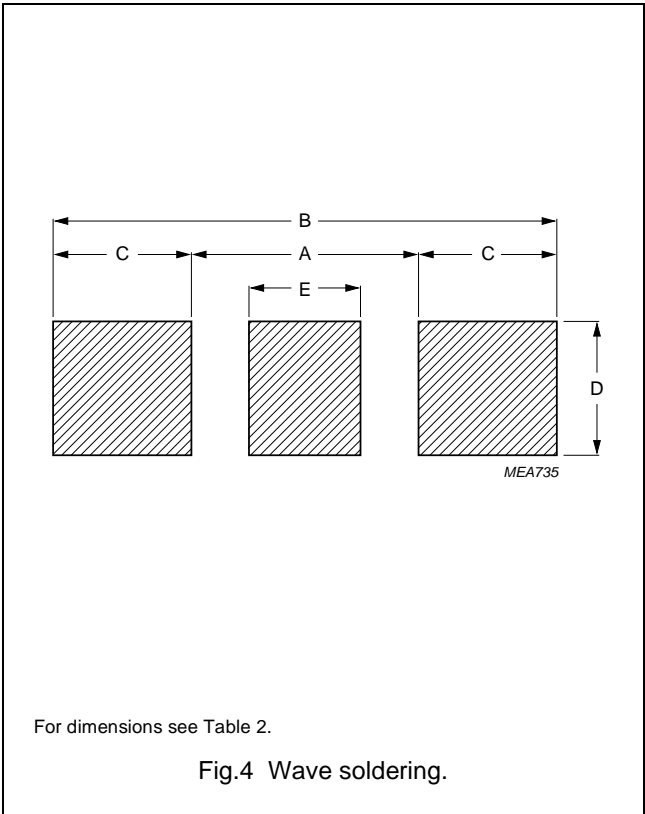


Table 2 Wave soldering

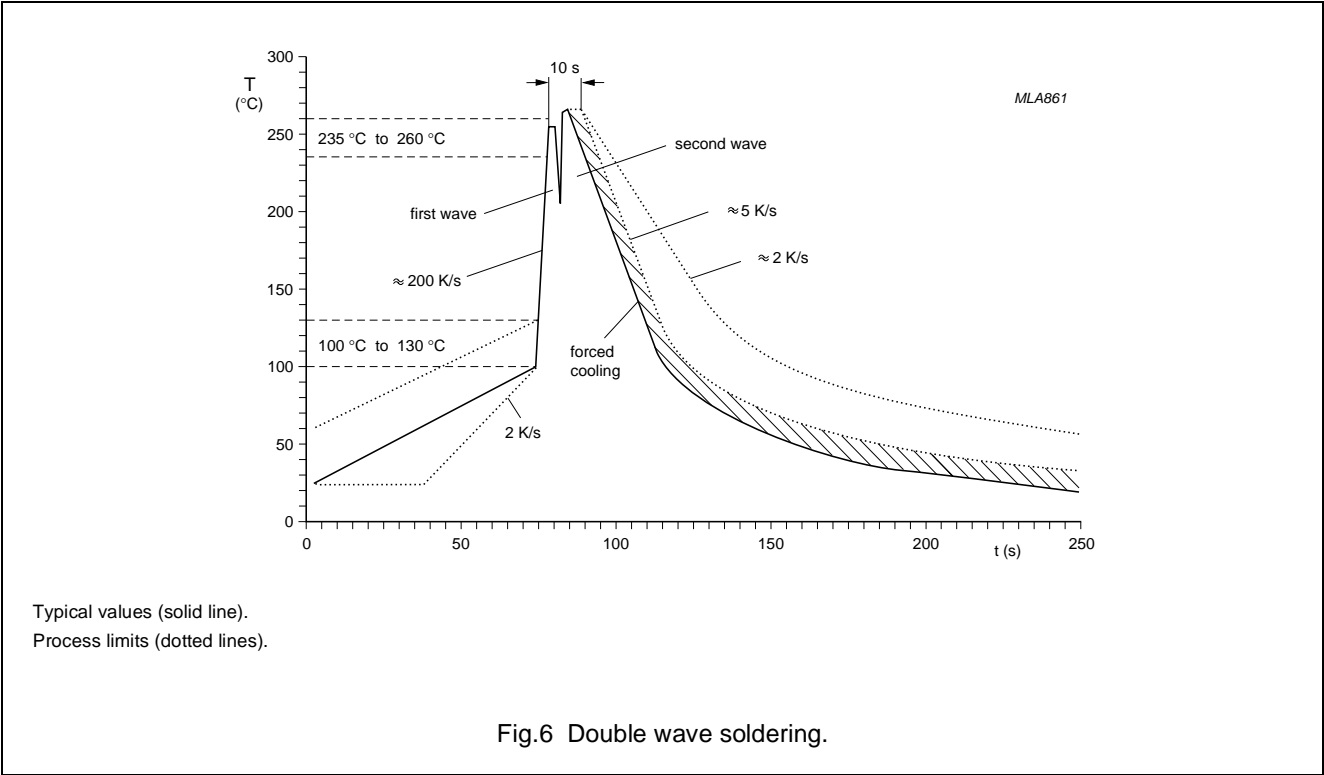
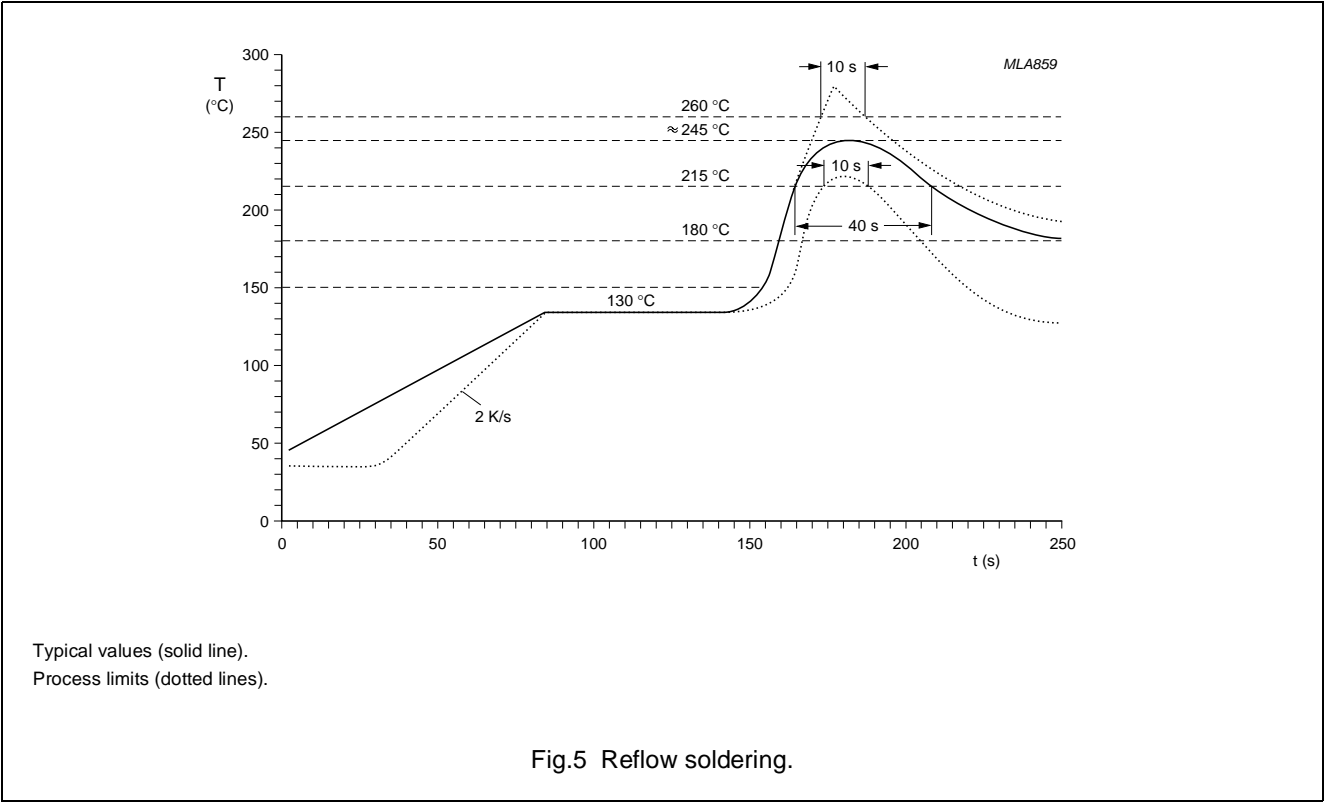
SIZE	DIMENSIONS (mm)				
	A	B	C	D	E
BDS 3/3/4.6	2.0	6.4	2.2	3.0	0.8
BDS 4.6/3/8.9	6.0	12.2	3.1	3.0	2.5



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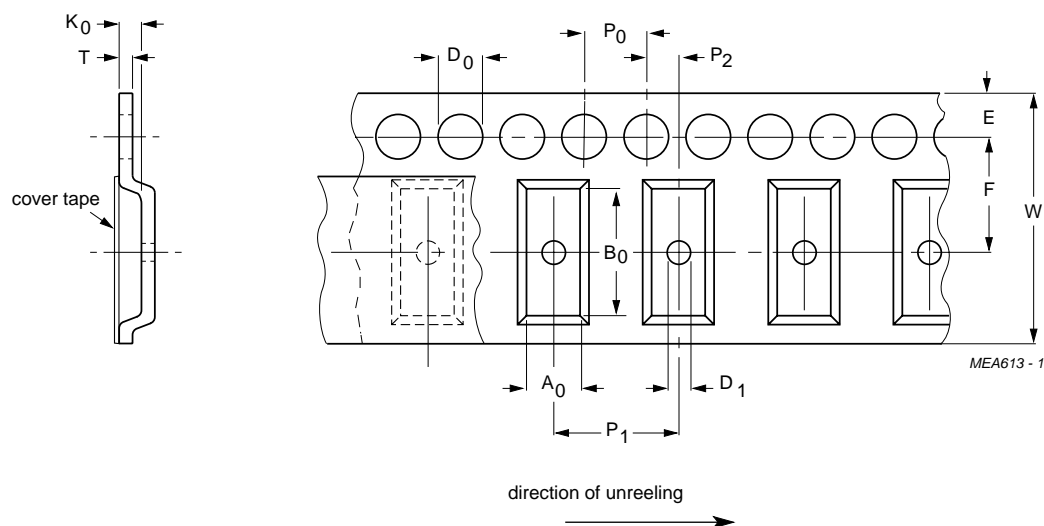
Soldering profiles



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## BLISTER TAPE AND REEL DIMENSIONS



For dimensions see Table 3.

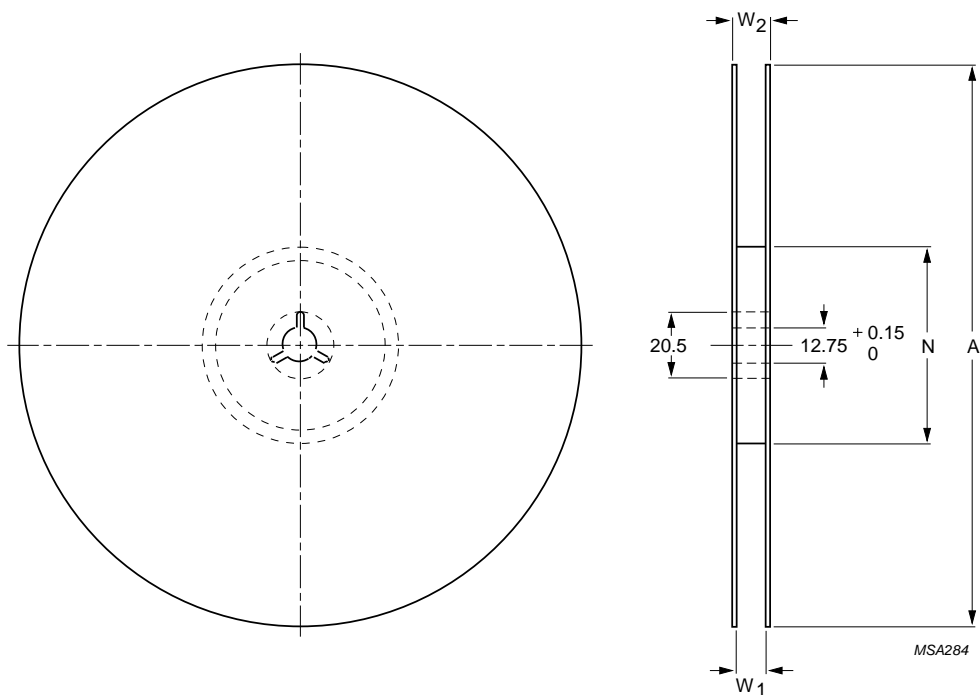
Fig.7 Blister tape.

**Table 3** Physical dimensions of blister tape; see Fig.7

SIZE	DIMENSIONS (mm)	
	BDS3/3/4.6	BDS4.6/3/8.9
$A_0$	$3.45 \pm 0.1$	$5.1 \pm 0.1$
$B_0$	$5.1 \pm 0.1$	$9.4 \pm 0.1$
$K_0$	$3.1 \pm 0.1$	$3.1 \pm 0.1$
$T$	$0.25 \pm 10\%$	$0.3 \pm 0.05$
$W$	$12.0 \pm 0.3$	$16.0 \pm 0.3$
$E$	$1.75 \pm 0.1$	$1.75 \pm 0.1$
$F$	$5.5 \pm 0.05$	$7.5 \pm 0.1$
$D_0$	$1.5 \pm 0.1$	$1.5 \pm 0.1$
$D_1$	$\geq 1.5$	$\geq 1.5$
$P_0$	$4.0 \pm 0.1$	$4.0 \pm 0.1$
$P_1$	$8.0 \pm 0.1$	$8.0 \pm 0.1$
$P_2$	$2.0 \pm 0.05$	$2.0 \pm 0.1$

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Dimensions in mm.  
For dimensions see Table 4.

Fig.8 Reel.

**Table 4** Reel dimensions; see Fig.8

SIZE	DIMENSIONS (mm)			
	A	N	W <sub>1</sub>	W <sub>2</sub>
12	330	100 ±5	12.4	≤16.4
16	330	100 ±5	16.4	≤20.4

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## DATA SHEET STATUS DEFINITIONS

DATA SHEET STATUS	PRODUCT STATUS	DEFINITIONS
Preliminary specification	Development	This data sheet contains preliminary data. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.
Product specification	Production	This data sheet contains final specifications. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.

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## PRODUCT STATUS DEFINITIONS

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<b>Preferred</b>		These products are recommended for use in current designs and are available via our sales channels.
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