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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# DATA SHEET

**E32/6/20/R**

**Planar E cores and accessories**

Supersedes data of September 2004

2008 Sep 01

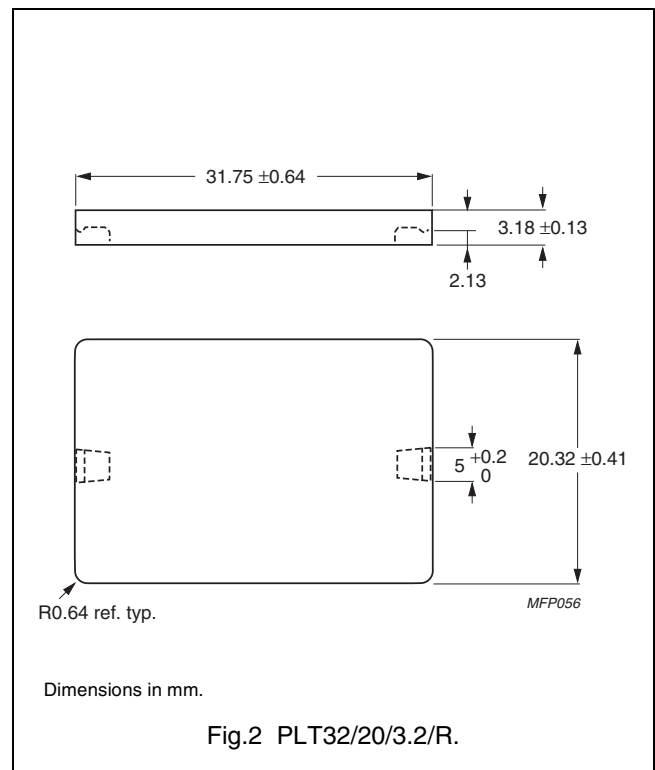
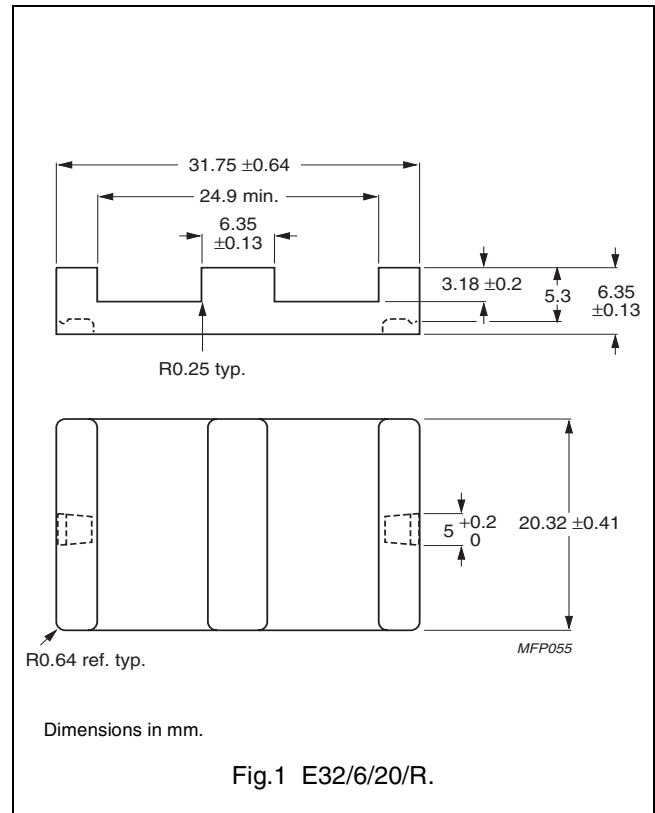
**CORES**

**Effective core parameters of an E/PLT combination**

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.278	mm <sup>-1</sup>
$V_e$	effective volume	4560	mm <sup>3</sup>
$l_e$	effective length	35.1	mm
$A_e$	effective area	130	mm <sup>2</sup>
$A_{min}$	minimum area	119	mm <sup>2</sup>
m	mass of core half	≈ 13	g
m	mass of plate	≈ 10	g

**Ordering information for plates**

GRADE	TYPE NUMBER
3C90	PLT32/20/3.2/R-3C90
3C92 <small>des</small>	PLT32/20/3.2/R-3C92
3C93 <small>des</small>	PLT32/20/3.2/R-3C93
3C94	PLT32/20/3.2/R-3C94
3C95 <small>des</small>	PLT32/20/3.2/R-3C95
3C96 <small>des</small>	PLT32/20/3.2/R-3C96
3F3	PLT32/20/3.2/R-3F3
3F4 <small>des</small>	PLT32/20/3.2/R-3F4



## Planar E cores and accessories

E32/6/20/R

**Core halves for use in combination with a recessed plate (PLT/R)**A<sub>L</sub> measured in combination with a recessed plate (PLT/R), clamping force for A<sub>L</sub> measurements, 30 ±10 N.

GRADE	A <sub>L</sub> (nH)	μ <sub>e</sub>	AIR GAP (μm)	TYPE NUMBER
3C90	160 ±3%	≈ 35	≈ 1200	E32/6/20/R-3C90-A160-P
	250 ±3%	≈ 55	≈ 700	E32/6/20/R-3C90-A250-P
	315 ±3%	≈ 69	≈ 550	E32/6/20/R-3C90-A315-P
	400 ±5%	≈ 87	≈ 450	E32/6/20/R-3C90-A400-P
	630 ±8%	≈ 138	≈ 260	E32/6/20/R-3C90-A630-P
	7350 ±25%	≈ 1610	≈ 0	E32/6/20/R-3C90
3C92 <small>des</small>	5760 ±25%	≈ 1270	≈ 0	E32/6/20/R-3C92
3C93 <small>des</small>	6780 ±25%	≈ 1500	≈ 0	E32/6/20/R-3C93
3C94	160 ±3%	≈ 35	≈ 1200	E32/6/20/R-3C94-A160-P
	250 ±3%	≈ 55	≈ 700	E32/6/20/R-3C94-A250-P
	315 ±3%	≈ 69	≈ 550	E32/6/20/R-3C94-A315-P
	400 ±5%	≈ 87	≈ 450	E32/6/20/R-3C94-A400-P
	630 ±8%	≈ 138	≈ 260	E32/6/20/R-3C94-A630-P
	7350 ±25%	≈ 1610	≈ 0	E32/6/20/R-3C94
3C95 <small>des</small>	8750 ±25%	≈ 1880	≈ 0	E32/6/20/R-3C95
3C96 <small>des</small>	7350 ±25%	≈ 1610	≈ 0	E32/6/20/R-3C96
3F3	160 ±3%	≈ 35	≈ 1200	E32/6/20/R-3F3-A160-P
	250 ±3%	≈ 55	≈ 700	E32/6/20/R-3F3-A250-P
	315 ±3%	≈ 69	≈ 550	E32/6/20/R-3F3-A315-P
	400 ±5%	≈ 87	≈ 450	E32/6/20/R-3F3-A400-P
	630 ±8%	≈ 138	≈ 260	E32/6/20/R-3F3-A630-P
	6780 ±25%	≈ 1490	≈ 0	E32/6/20/R-3F3
3F4 <small>des</small>	160 ±3%	≈ 35	≈ 1200	E32/6/20/R-3F4-A160-P
	250 ±3%	≈ 55	≈ 700	E32/6/20/R-3F4-A250-P
	315 ±3%	≈ 69	≈ 550	E32/6/20/R-3F4-A315-P
	400 ±5%	≈ 87	≈ 450	E32/6/20/R-3F4-A400-P
	630 ±8%	≈ 138	≈ 260	E32/6/20/R-3F4-A630-P
	3700 ±25%	≈ 810	≈ 0	E32/6/20/R-3F4

## Properties of core sets under power conditions

GRADE	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 100 kHz; $\hat{B}$ = 100 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 25 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C
E32/R+PLT32/R-3C90	≥320	≤ 0.55	–	–	–
E32/R+PLT32/R-3C92	≥370	≤ 0.41	–	≤ 2.9	–
E32/R+PLT32/R-3C93	≥320	≤ 0.41 <sup>(1)</sup>	–	≤ 2.9 <sup>(1)</sup>	–
E32/R+PLT32/R-3C94	≥320	≤ 0.41	–	≤ 2.9	–
E32/R+PLT32/R-3C95	≥320	–	≤ 2.69	≤ 2.55	–
E32/R+PLT32/R-3C96	≥320	≤ 0.3	–	≤ 2.2	≤ 0.8
E32/R+PLT32/R-3F3	≥300	≤ 0.6	–	–	≤ 0.85
E32/R+PLT32/R-3F4	≥250	–	–	–	–

1. Measured at 140 °C.

## Properties of core sets under power conditions (continued)

GRADE	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 500 kHz; $\hat{B}$ = 50 mT; T = 100 °C	f = 500 kHz; $\hat{B}$ = 100 mT; T = 100 °C	f = 1 MHz; $\hat{B}$ = 30 mT; T = 100 °C	f = 3 MHz; $\hat{B}$ = 10 mT; T = 100 °C
E32/R+PLT32/R-3C90	≥320	–	–	–	–
E32/R+PLT32/R-3C92	≥370	–	–	–	–
E32/R+PLT32/R-3C93	≥320	–	–	–	–
E32/R+PLT32/R-3C94	≥320	–	–	–	–
E32/R+PLT32/R-3C95	≥320	–	–	–	–
E32/R+PLT32/R-3C96	≥320	≤ 1.7	–	–	–
E32/R+PLT32/R-3F3	≥300	–	–	–	–
E32/R+PLT32/R-3F4	≥250	–	–	≤ 1.36	≤ 2.2



## Planar E cores and accessories

E32/6/20/R




**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**

STATUS	INDICATION	DEFINITION
<b>Prototype</b>		These are products that have been made as development samples for the purposes of technical evaluation only. The data for these types is provisional and is subject to change.
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