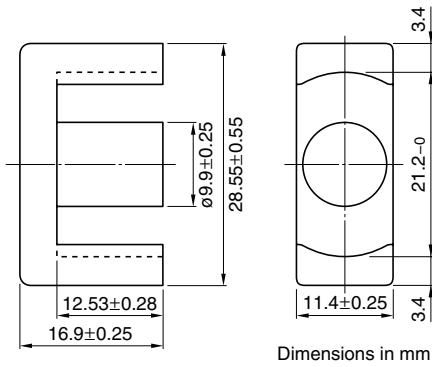


EER Series EER28L Cores(JIS FEER 28.5B)



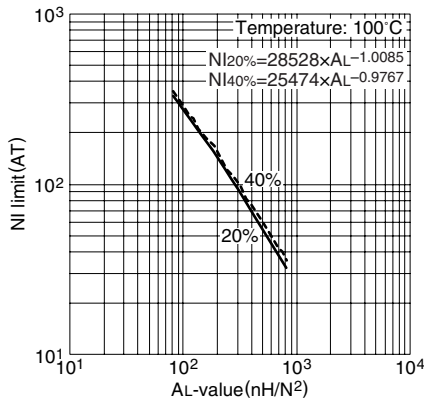
PARAMETER

Core factor	C1	mm ⁻¹	0.928
Effective magnetic path length	ℓ_e	mm	75.5
Effective cross-sectional area	A_e	mm ²	81.4
Effective core volume	V_e	mm ³	6150
Cross-sectional center pole area	A_{cp}	mm ²	77.0
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	73.1
Cross-sectional winding area of core	A_{cw}	mm ²	148
Weight (approx.)		g	33

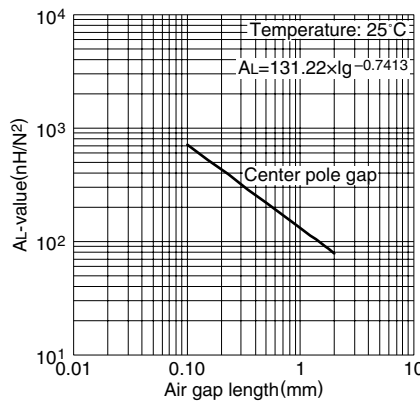
Part No.	AL-value (nH/N ²)	Core loss (W) 100kHz, 200mT	Calculated output power (forward converter mode)
PC47EER28L-Z	2520±25% (1kHz, 0.5mA)* 3660 min. (100kHz, 200mT)	2.03 max.(100°C)	267W (100kHz)
PC95EER28L-Z	2520±25% (1kHz, 0.5mA)* 3500±25%	2.9/2.45/2.9(25°C/80°C/120°C)	250W (100kHz)

* Coil: ϕ 0.35 2UEW 100Ts

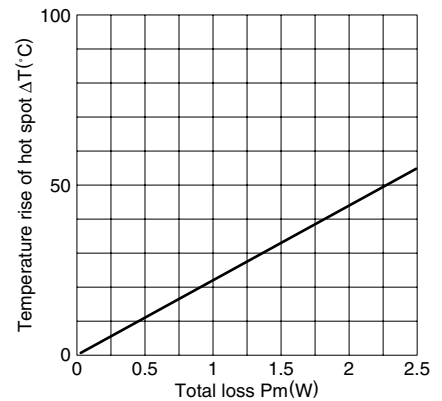
NI limit vs. AL-value for PC47EER28L gapped core (Typical)



AL-value vs. Air gap length for PC47EER28L core (Typical)

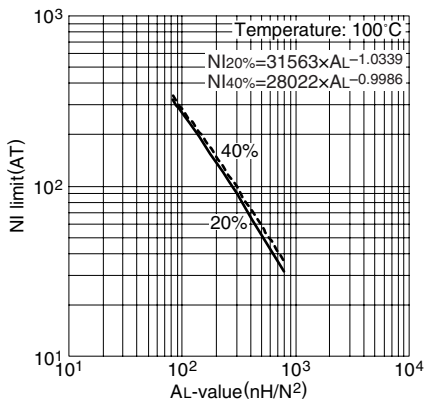


Temperature rise vs. Total loss for EER28L core (Typical) (Ambient temperature: 25°C)

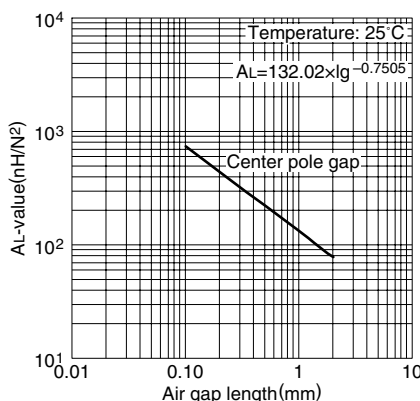


Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%)RH, respectively. (approx. 400×300×300cm)

NI limit vs. AL-value for PC95EER28L gapped core (Typical)

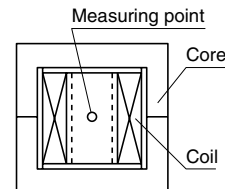


AL-value vs. Air gap length for PC95EER28L core (Typical)

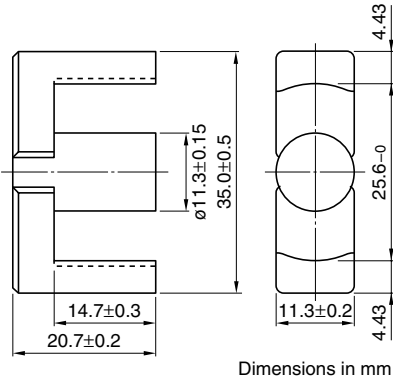


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

Measuring conditions • Coil: ϕ 0.35 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA



EER Series EER35 Cores(JIS FEER 35A)



Dimensions in mm

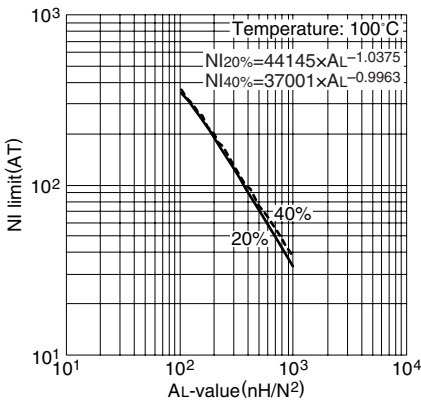
PARAMETER

Core factor	C1	mm ⁻¹	0.849
Effective magnetic path length	ℓ_e	mm	90.8
Effective cross-sectional area	A_e	mm ²	107
Effective core volume	V_e	mm ³	9720
Cross-sectional center pole area	A_{cp}	mm ²	100
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	97.6
Cross-sectional winding area of core	A_{cw}	mm ²	218
Weight (approx.)		g	52

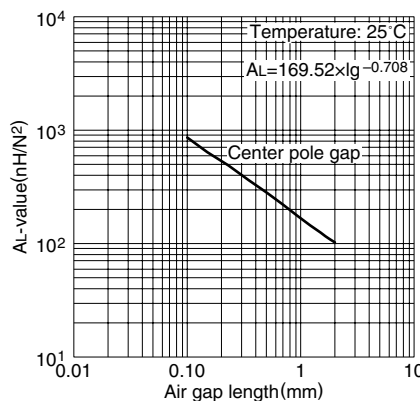
Part No.	AL-value (nH/N ²)	Core loss (W) 100kHz, 200mT	Calculated output power (forward converter mode)
PC47EER35-Z	2770±25% (1kHz, 0.5mA)* 4000 min. (100kHz, 200mT)	3.18 max.(100°C)	376W (100kHz)
PC95EER35-Z	2770±25% (1kHz, 0.5mA)* 4000±25%	4.55/3.8/4.55(25°C/80°C/120°C)	336W (100kHz)

* Coil: ϕ 0.35 2UEW 100Ts

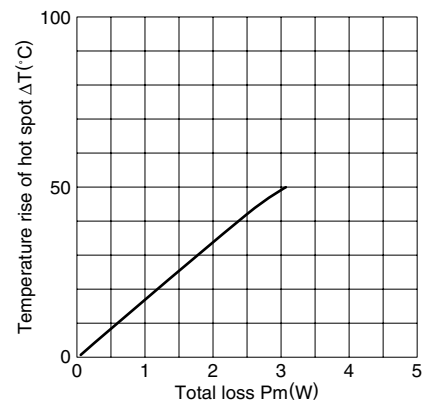
NI limit vs. AL-value for PC47EER35 gapped core (Typical)



AL-value vs. Air gap length for PC47EER35 core (Typical)

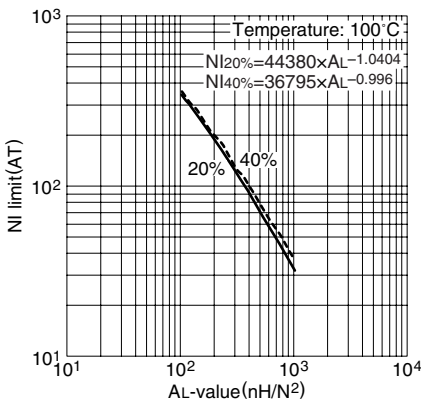


Temperature rise vs. Total loss for EER35 core (Typical) (Ambient temperature: 25°C)

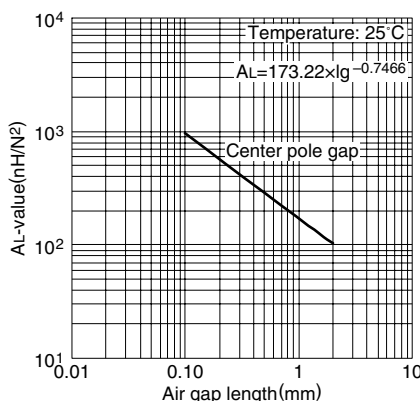


Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%)RH, respectively. (approx. 400×300×300cm)

NI limit vs. AL-value for PC95EER35 gapped core (Typical)

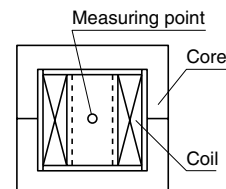


AL-value vs. Air gap length for PC95EER35 core (Typical)

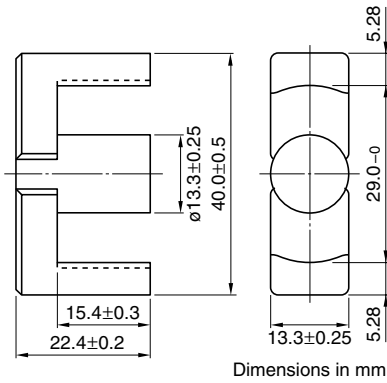


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

Measuring conditions • Coil: ϕ 0.35 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA



EER Series EER40 Cores



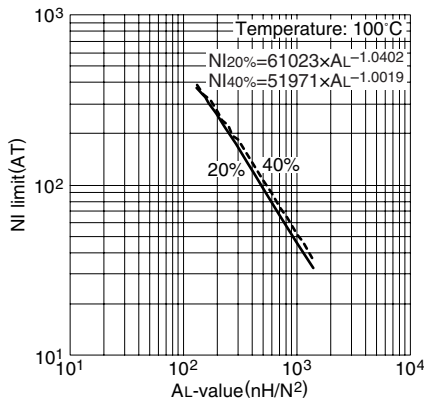
PARAMETER

Parameter	Symbol	Unit	Value
Core factor	C1	mm ⁻¹	0.658
Effective magnetic path length	ℓ_e	mm	98.0
Effective cross-sectional area	A_e	mm ²	149
Effective core volume	V_e	mm ³	14600
Cross-sectional center pole area	A_{cp}	mm ²	139
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	134
Cross-sectional winding area of core	A_{cw}	mm ²	249
Weight (approx.)	g		78

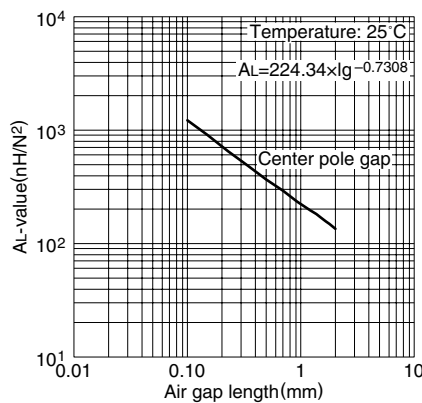
Part No.	AL-value (nH/N ²)	Core loss (W) 100kHz, 200mT	Calculated output power (forward converter mode)
PC47EER40-Z	3620±25% (1kHz, 0.5mA)* 5160 min. (100kHz, 200mT)	4.77 max. (100°C)	484W (100kHz)
PC95EER40-Z	3620±25% (1kHz, 0.5mA)* 5200±25%	6.8/5.7/6.8(25°C/80°C/120°C)	446W (100kHz)

* Coil: ø0.35 2UEW 100Ts

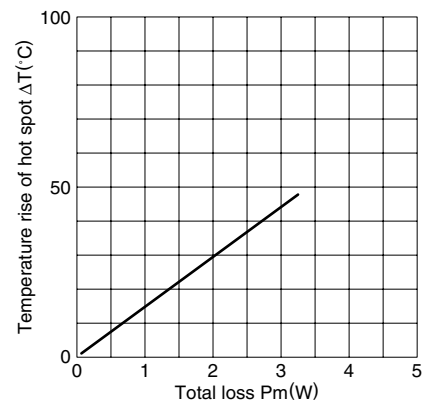
NI limit vs. AL-value for
PC47EER40 gapped core (Typical)



AL-value vs. Air gap length for
PC47EER40 core (Typical)

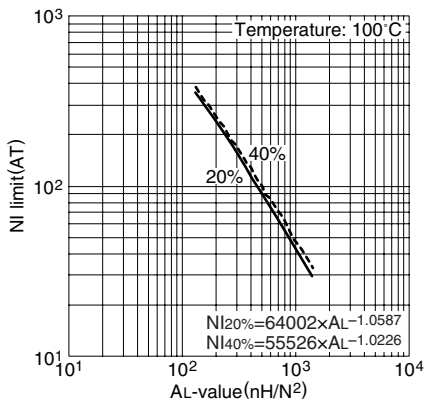


Temperature rise vs. Total loss for
EER40 core (Typical)
(Ambient temperature: 25°C)



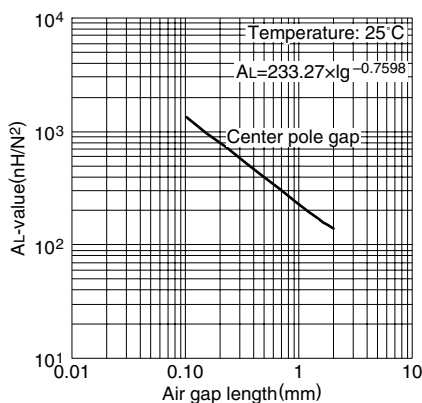
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

NI limit vs. AL-value for
PC95EER40 gapped core (Typical)

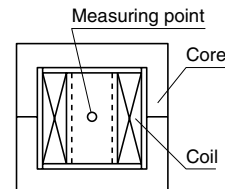


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

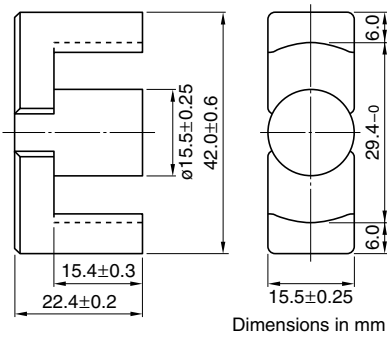
AL-value vs. Air gap length for
PC95EER40 core (Typical)



Measuring conditions • Coil: ø0.35 2UEW 100Ts
 • Frequency: 1kHz
 • Level: 0.5mA



EER Series EER42 Cores(JIS FEER 42)



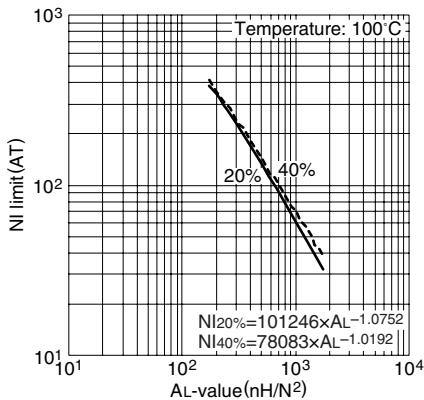
PARAMETER

Core factor	C1	mm ⁻¹	0.509
Effective magnetic path length	ℓ_e	mm	98.8
Effective cross-sectional area	A_e	mm ²	194
Effective core volume	V_e	mm ³	19200
Cross-sectional center pole area	A_{cp}	mm ²	187
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	183
Cross-sectional winding area of core	A_{cw}	mm ²	223
Weight (approx.)		g	102

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC47EER42-Z	4690±25% (1kHz, 0.5mA)* 6670 min. (100kHz, 200mT)	6.47 max.	540W (100kHz)

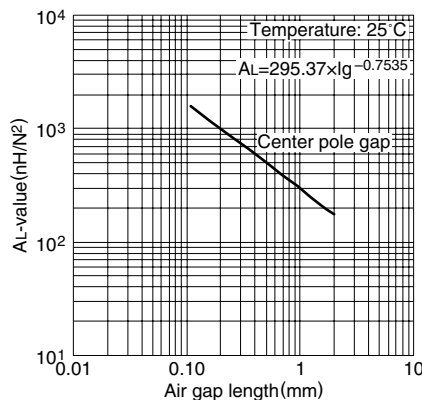
* Coil: ϕ 0.35 2UEW 100Ts

NI limit vs. AL-value for PC47EER42 gapped core (Typical)



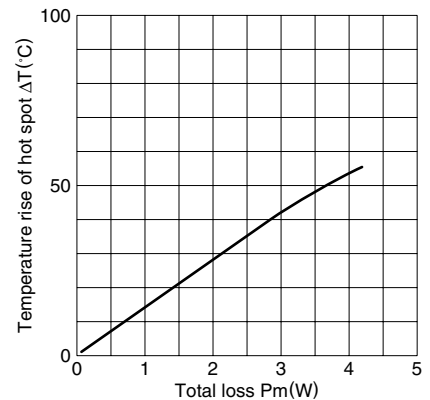
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC47EER42 core (Typical)

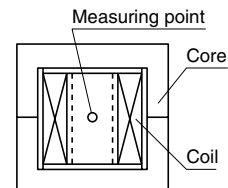


Measuring conditions • Coil: ϕ 0.35 2UEW 100Ts
 • Frequency: 1kHz
 • Level: 0.5mA

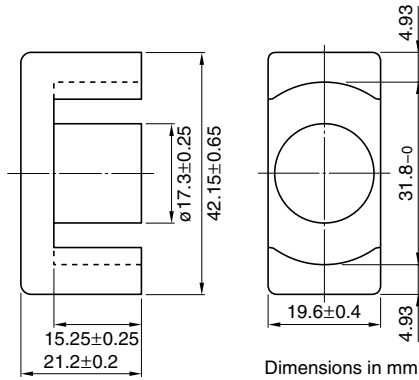
Temperature rise vs. Total loss for EER42 core (Typical) (Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%(%)RH, respectively. (approx. 400×300×300cm)



EER Series EER42/42/20 Cores



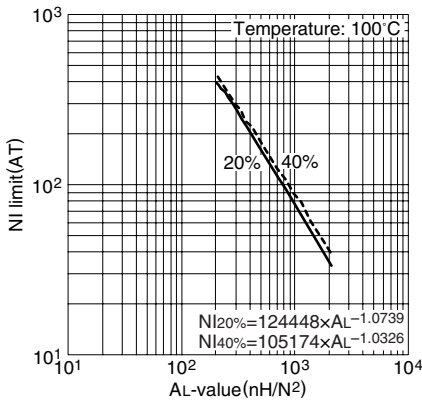
PARAMETER

Core factor	C1	mm ⁻¹	0.411
Effective magnetic path length	ℓ_e	mm	98.6
Effective cross-sectional area	A_e	mm ²	240
Effective core volume	V_e	mm ³	23700
Cross-sectional center pole area	A_{cp}	mm ²	235
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	228
Cross-sectional winding area of core	A_{cw}	mm ²	229
Weight (approx.)		g	116

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC47EER42/42/20-Z	5340±25% (1kHz, 0.5mA)* 8260 min. (100kHz, 200mT)	9.96 max.	647W (100kHz)

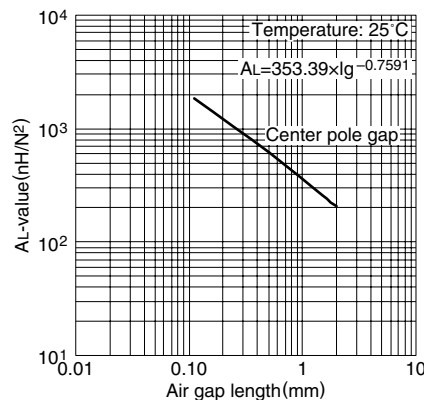
* Coil: ϕ 0.35 2UEW 100Ts

NI limit vs. AL-value for PC47EER42/42/20 gapped core (Typical)



Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

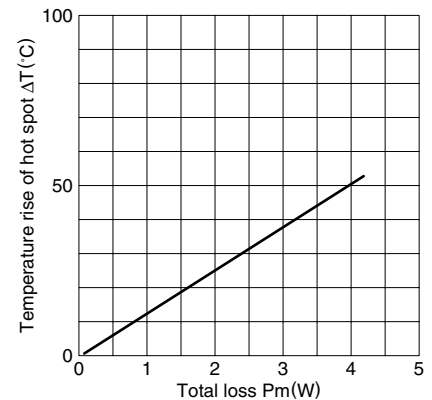
AL-value vs. Air gap length for PC47EER42/42/20 core (Typical)



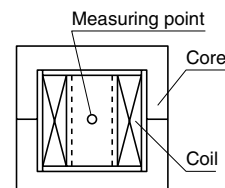
Measuring conditions

- Coil: ϕ 0.35 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA

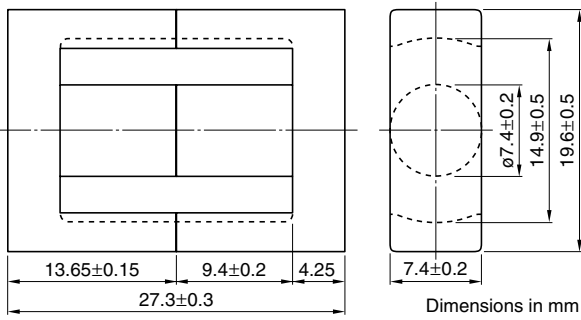
Temperature rise vs. Total loss for EER42/42/20 core (Typical) (Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)



ETD Series ETD19 Cores



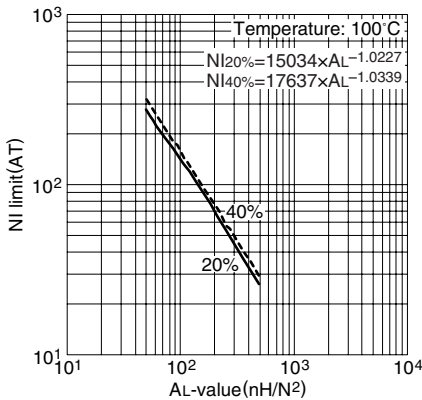
PARAMETER

Core factor	C1	mm ⁻¹	1.32
Effective magnetic path length	ℓ_e	mm	54.6
Effective cross-sectional area	A_e	mm ²	41.3
Effective core volume	V_e	mm ³	2260
Cross-sectional center pole area	A_{cp}	mm ²	43
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	40.7
Cross-sectional winding area of core	A_{cw}	mm ²	70.5
Weight (approx.)	g		13.3

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC47ETD19-Z	1720±25% (1kHz, 0.5mA)* 2380 min. (100kHz, 200mT)	1.01 max.	114W (100kHz)

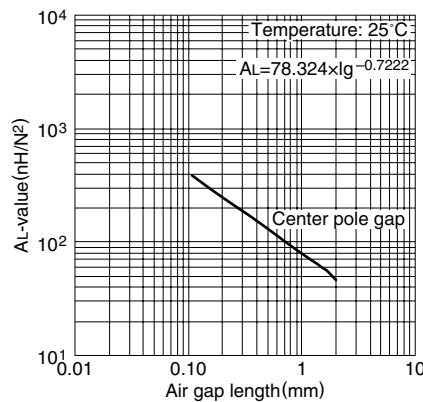
* Coil: ø0.35 2UEW 100Ts

NI limit vs. AL-value for PC47ETD19 gapped core (Typical)

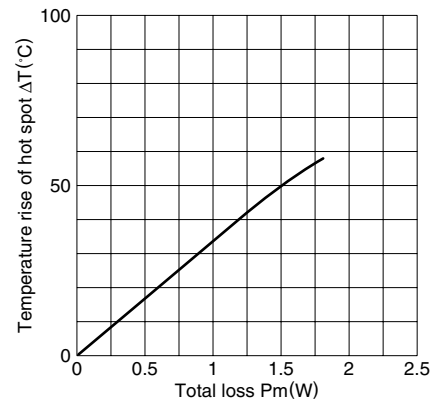


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

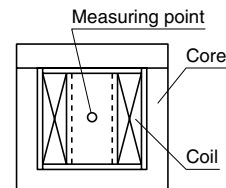
AL-value vs. Air gap length for PC47ETD19 core (Typical)


 Measuring conditions

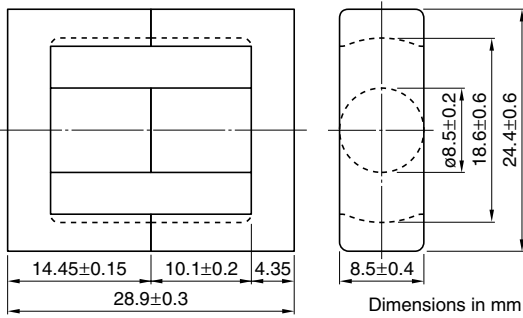
- Coil: ø0.35 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA

 Temperature rise vs. Total loss for ETD19 core (Typical)
(Ambient temperature: 25°C)


Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%)RH, respectively. (approx. 400×300×300cm)



ETD Series ETD24 Cores

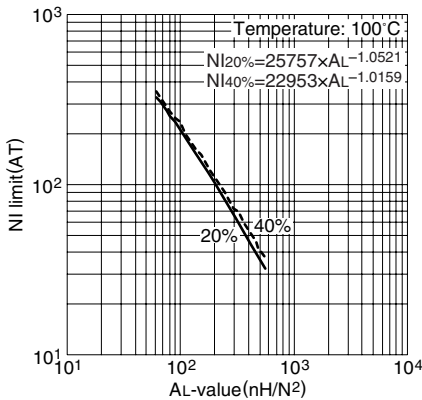


PARAMETER

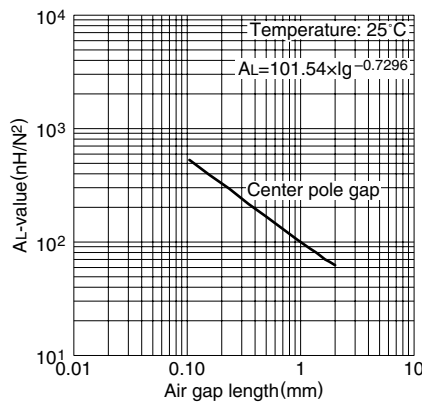
Core factor	C1	mm ⁻¹	1.10
Effective magnetic path length	ℓ _e	mm	61.9
Effective cross-sectional area	A _e	mm ²	56.3
Effective core volume	V _e	mm ³	3480
Cross-sectional center pole area	A _{cp}	mm ²	56.7
Minimum cross-sectional center pole area	A _{cp min.}	mm ²	54.1
Cross-sectional winding area of core	A _{cw}	mm ²	102
Weight (approx.)		g	19.5

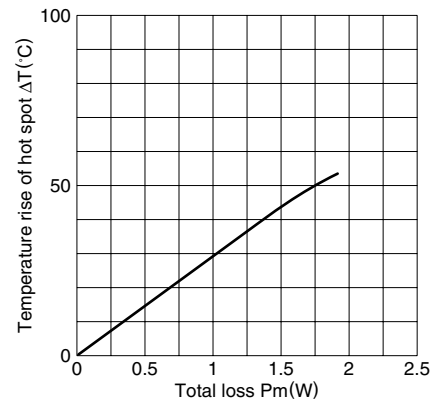
Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC47ETD24-Z	2125±25% (1kHz, 0.5mA)* 2860 min. (100kHz, 200mT)	1.51 max.	131W (100kHz)

* Coil: ∅0.35 2UEW 100Ts

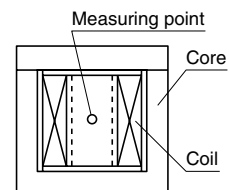
 NI limit vs. AL-value for
PC47ETD24 gapped core (Typical)


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

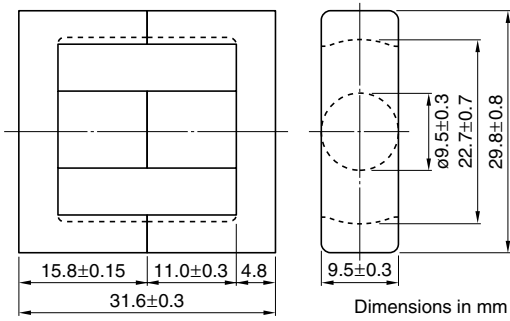
 AL-value vs. Air gap length for
PC47ETD24 core (Typical)

 Measuring conditions • Coil: ∅0.35 2UEW 100Ts
 • Frequency: 1kHz
 • Level: 0.5mA

 Temperature rise vs. Total loss for
ETD24 core (Typical)
(Ambient temperature: 25°C)


Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%)RH, respectively. (approx. 400×300×300cm)



ETD Series ETD29 Cores



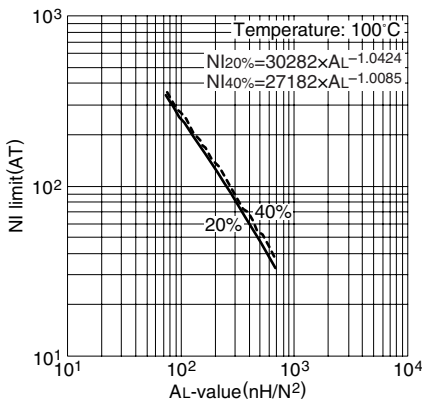
PARAMETER

Core factor	C1	mm ⁻¹	0.959
Effective magnetic path length	ℓ_e	mm	70.6
Effective cross-sectional area	A_e	mm ²	73.6
Effective core volume	V_e	mm ³	5200
Cross-sectional center pole area	A_{cp}	mm ²	70.9
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	66.5
Cross-sectional winding area of core	A_{cw}	mm ²	145.2
Weight (approx.)		g	28

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC47ETD29-Z	2500±25% (1kHz, 0.5mA)* 3540 min. (100kHz, 200mT)	1.75 max.	242W (100kHz)

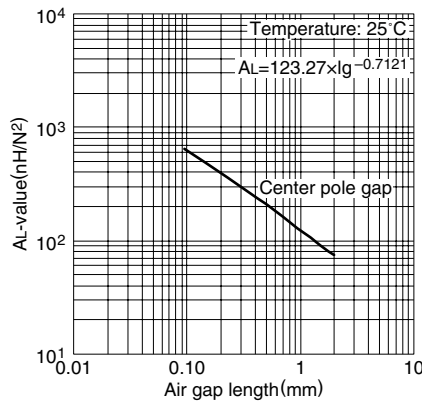
* Coil: ø0.35 2UEW 100Ts

NI limit vs. AL-value for PC47ETD29 gapped core (Typical)



Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

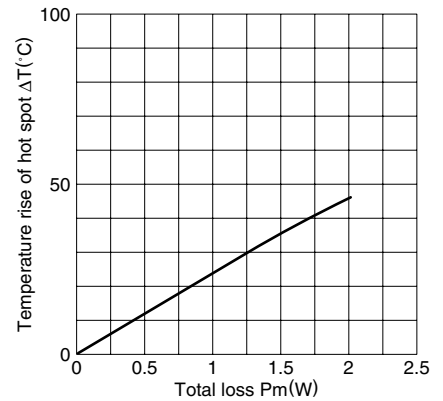
AL-value vs. Air gap length for PC47ETD29 core (Typical)



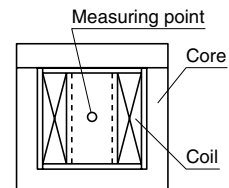
Measuring conditions

- Coil: ø0.35 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA

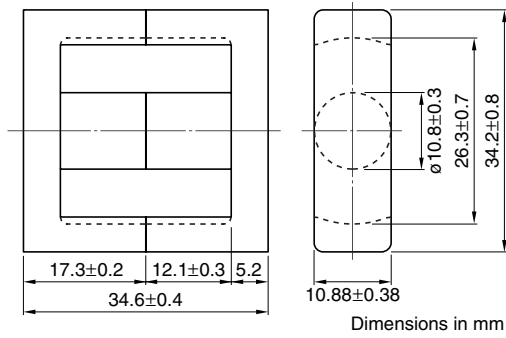
Temperature rise vs. Total loss for ETD29 core (Typical) (Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%RH), respectively. (approx. 400×300×300cm)



ETD Series ETD34 Cores



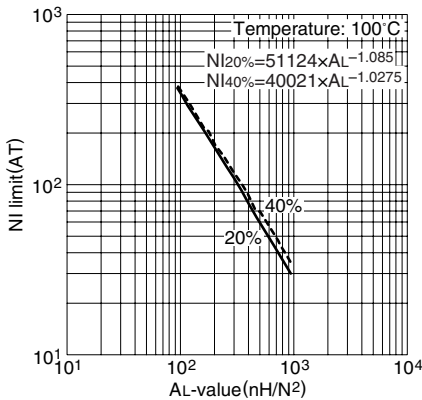
PARAMETER

Core factor	C1	mm ⁻¹	0.810
Effective magnetic path length	ℓ_e	mm	78.6
Effective cross-sectional area	A_e	mm ²	97.1
Effective core volume	V_e	mm ³	7630
Cross-sectional center pole area	A_{cp}	mm ²	91.6
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	86.6
Cross-sectional winding area of core	A_{cw}	mm ²	188
Weight (approx.)		g	40

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC47ETD34-Z	2780±25% (1kHz, 0.5mA)* 4190 min. (100kHz, 200mT)	2.52 max.	321W (100kHz)

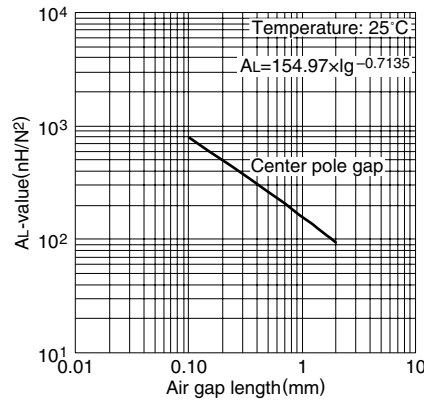
* Coil: ϕ 0.35 2UEW 100Ts

NI limit vs. AL-value for PC47ETD34 gapped core (Typical)



Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

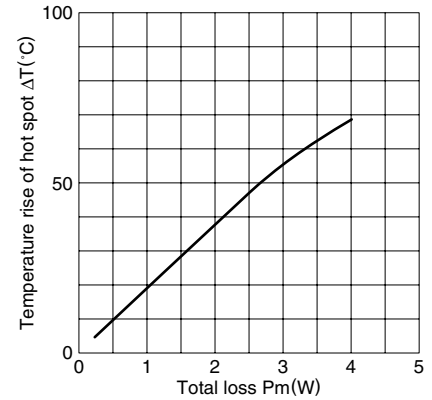
AL-value vs. Air gap length for PC47ETD34 core (Typical)



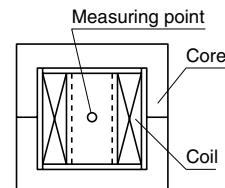
Measuring conditions

- Coil: ϕ 0.35 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA

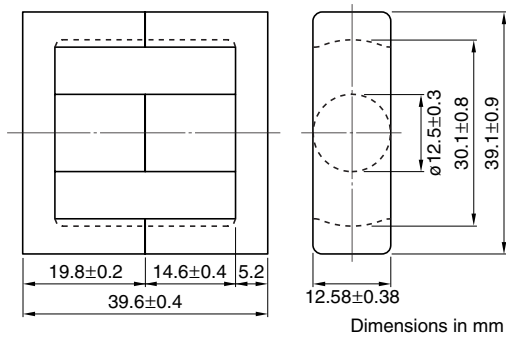
Temperature rise vs. Total loss for ETD34 core (Typical) (Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)



ETD Series ETD39 Cores



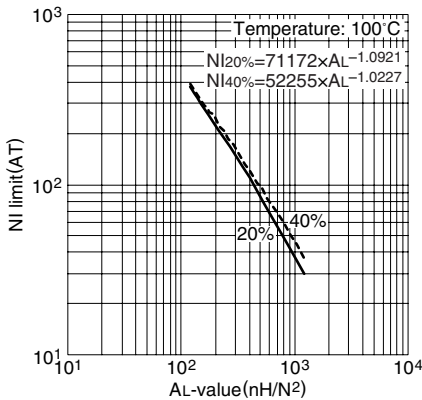
PARAMETER

Core factor	C1	mm ⁻¹	0.737
Effective magnetic path length	ℓ_e	mm	92.1
Effective cross-sectional area	A_e	mm ²	125
Effective core volume	V_e	mm ³	11500
Cross-sectional center pole area	A_{cp}	mm ²	123
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	117
Cross-sectional winding area of core	A_{cw}	mm ²	257
Weight (approx.)		g	60

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC47ETD39-Z	3150±25% (1kHz, 0.5mA)* 4600 min. (100kHz, 200mT)	3.96 max.	450W (100kHz)

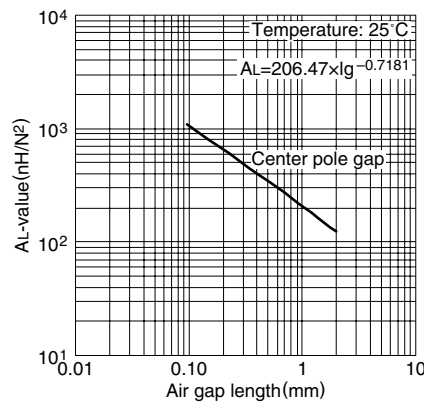
* Coil: ϕ 0.35 2UEW 100Ts

NI limit vs. AL-value for PC47ETD39 gapped core (Typical)



Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

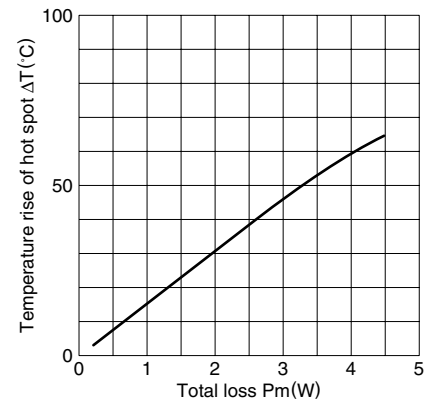
AL-value vs. Air gap length for PC47ETD39 core (Typical)



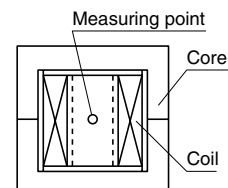
Measuring conditions

- Coil: ϕ 0.35 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA

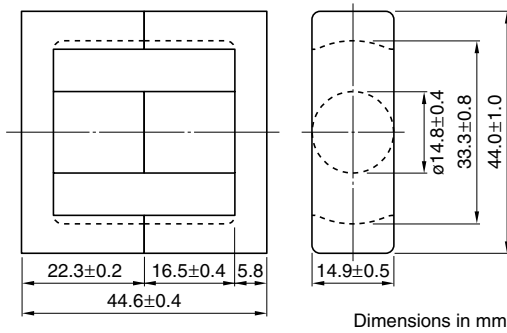
Temperature rise vs. Total loss for ETD39 core (Typical) (Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)



ETD Series ETD44 Cores



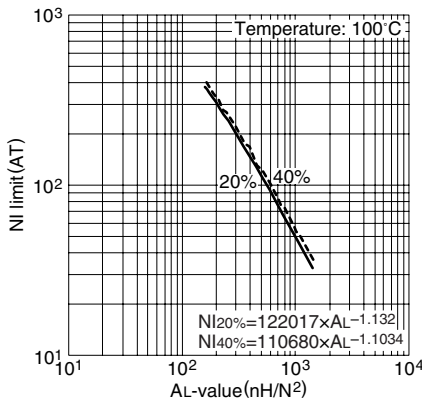
PARAMETER

Core factor	C1	mm ⁻¹	0.589
Effective magnetic path length	ℓ_e	mm	103
Effective cross-sectional area	A_e	mm ²	175
Effective core volume	V_e	mm ³	18000
Cross-sectional center pole area	A_{cp}	mm ²	172
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	163
Cross-sectional winding area of core	A_{cw}	mm ²	305
Weight (approx.)		g	94

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC47ETD44-Z	4000±25% (1kHz, 0.5mA)* 5760 min. (100kHz, 200mT)	6.2 max.	581W (100kHz)

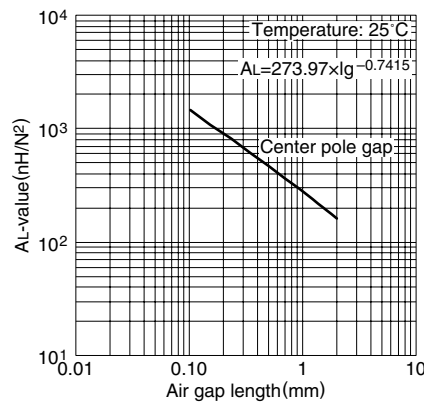
* Coil: ϕ 0.35 2UEW 100Ts

NI limit vs. AL-value for PC47ETD44 gapped core (Typical)



Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

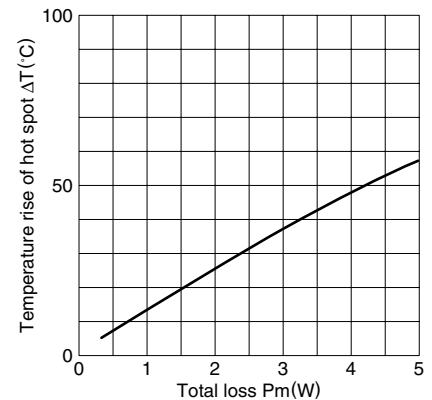
AL-value vs. Air gap length for PC47ETD44 core (Typical)



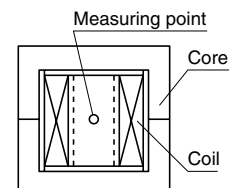
Measuring conditions

- Coil: ϕ 0.35 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA

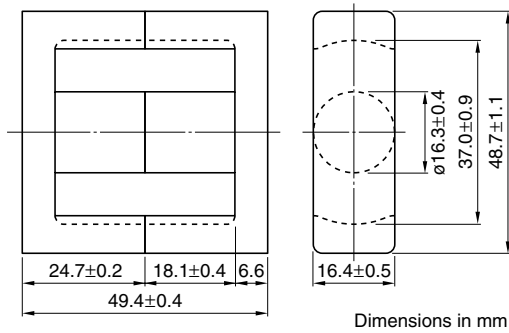
Temperature rise vs. Total loss for ETD44 core (Typical) (Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%)RH, respectively. (approx. 400×300×300cm)



ETD Series ETD49 Cores



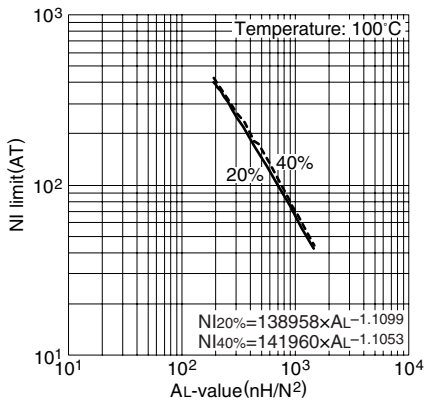
PARAMETER

Core factor	C1	mm ⁻¹	0.535
Effective magnetic path length	ℓ_e	mm	114
Effective cross-sectional area	A_e	mm ²	213
Effective core volume	V_e	mm ³	24300
Cross-sectional center pole area	A_{cp}	mm ²	209
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	199
Cross-sectional winding area of core	A_{cw}	mm ²	375
Weight (approx.)		g	124

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC47ETD49-Z	4440±25% (1kHz, 0.5mA)* 6340 min. (100kHz, 200mT)	10.25 max.	692W (100kHz)

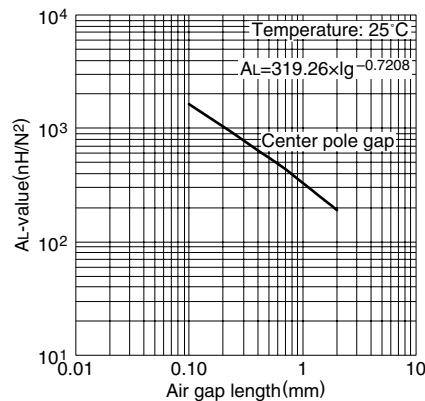
* Coil: ø0.35 2UEW 100Ts

NI limit vs. AL-value for PC47ETD49 gapped core (Typical)



Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

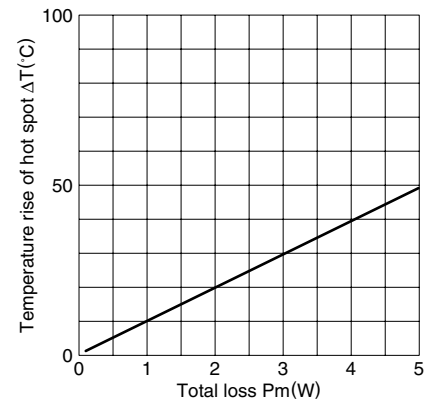
AL-value vs. Air gap length for PC47ETD49 core (Typical)



Measuring conditions

- Coil: ø0.35 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA

Temperature rise vs. Total loss for ETD49 core (Typical) (Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%)RH, respectively. (approx. 400×300×300cm)

