

CACO-01 Co-based Amorphous Core

performance index

Description	Item-symbol	Refer Value
(25°C) Saturate Magnetic Flux Density (25°C)	T	0.55
(25°C) Saturate Magnetostriction (25°C)	λs	<0.2×10 ⁻⁶
(°C) Curie Temperature	Tc	256
△Bss (25°C) Two-stage Magnetic Flux Density △Bss (25°C)	T	1.14
△Bss (90°C) Two-stage Magnetic Flux Density △Bss (90°C)	T	1.0
△Bss (120°C) Two-stage Magnetic Flux Density △Bss (120°C)	T	0.8
Square Ratio Br/Bm	%	94
(°C) Continuous Working Temperature	/	90

- APLICACIONES - Magnetic Amplifier , Leakage Current Transformer, Magnetic Sensor, Spike Suppressor
- CARACTERISTICAS - Low Hc, low loss, high squareness ratio
- When the current is zero, it has a very large inductance, effectively blocking the reverse reset current generated by the diode, it can be used as peak suppressor With a very high squareness ratio, it can reach saturation at a very small current and can be used for leakage protection Very low magnetostriction coefficient, stable work under extreme conditions



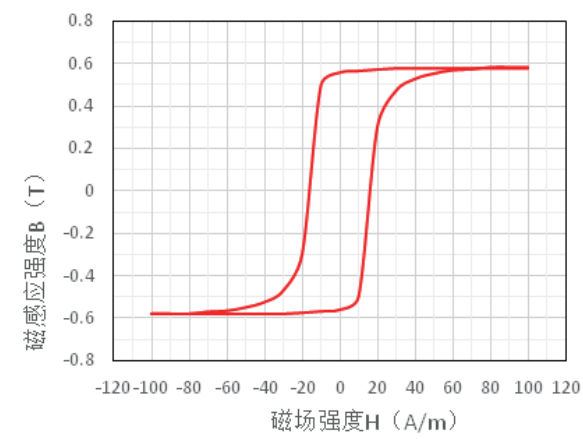
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P/N	Core Dimension				Cross section area	Magnetic Iron Path Length	Weight
	Bare Core Dimension OD X ID X H (mm)	Finished Core Dimension					
		OD(mm) (max)	ID(mm) (min)	H(mm) (max)	Ae (cm²)	Le (cm)	m (g)
CACO-01-0001-H	10x8x4	12.1	5.9	6.1	0.032	2.83	0.69
CACO-01-0002-H	10.1x6.9x4.5	12.1	4.8	6.6	0.057	2.67	1.17
CACO-01-0004-H	12x8x4	14.1	5.9	6.1	0.064	3.14	1.53
CACO-01-0005-H	12.5x10x5	14.6	7.9	7.1	0.05	3.5	1.34
CACO-01-0003-H	12.8x9.5x3.2	14.9	7.4	5.5	0.042	3.5	1.12
CACO-01-0006-H	14x8x4.5	16.1	5.9	6.6	0.11	3.45	2.84
CACO-01-0023-H	14x10x4.5	16.1	7.9	6.6	0.072	3.77	2.06
CACO-01-0028-H	14.7x13x3.2	16.8	10.9	5.3	0.022	4.35	0.72
CACO-01-0007-H	15x10x4.5	17.1	7.9	6.6	0.09	3.92	2.68
CACO-01-0008-H	15x10x6	17.1	7.9	8.1	0.12	3.92	3.58
CACO-01-0009-H	16x10x6	18.1	7.9	8.1	0.144	4.01	4.47
CACO-01-0010-H	17.5x12.5x6	19.6	10.4	8.1	0.12	4.67	4.3
CACO-01-0024-H	18.4x17x5	20.5	14.9	7.1	0.028	5.56	1.18
CACO-01-0011-H	19x15x5	21.1	12.9	7.1	0.08	5.34	3.25
CACO-01-0012-H	19x15x10	21.1	12.9	12.1	0.16	5.34	6.49
CACO-01-0027-H	19x17x5	21.1	12.9	7.1	0.044	5.64	1.72
CACO-01-0013-H	20x12.5x8	22.1	10.4	10.1	0.24	5.1	9.31
CACO-01-0039-H	20x14x5	22.1	11.9	7.1	0.12	5.34	4.87
CACO-01-0060-H	21x19x3	23.1	16.9	5.1	0.024	6.28	1.15
CACO-01-0029-H	22x14x5	24.1	11.9	7.1	0.16	5.65	6.87
CACO-01-0017-H	23x16.5x3	25.1	14.4	5.1	0.078	6.2	3.68
CACO-01-0053-H	23x17x3	25.1	14.9	5.1	0.072	6.28	3.44
CACO-01-0025-H	24.4x23x5	26.5	20.9	7.1	0.028	7.44	1.58
CACO-01-0014-H	25x20x10	27.1	17.9	12.1	0.2	7.03	10.74
CACO-01-0015-H	25x16x10	27.1	13.9	12.1	0.36	6.44	17.61
CACO-01-0026-H	25x23x5	27.1	20.9	7.1	0.04	7.54	2.29
CACO-01-0016-H	30x20x10	32.1	17.9	12.1	0.4	7.85	23.86
CACO-01-0018-H	45x36x15	47.1	33.9	17.1	0.54	12.72	52.19
CACO-01-0019-H	45x30x15	47.1	27.9	17.1	0.9	11.77	80.54
CACO-01-0021-H	45x32x15	47.1	29.9	17.1	0.78	12.09	71.66
CACO-01-0022-H	49x41x6.5	51.1	38.9	8.6	0.208	14.13	22.34

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*The provided data is for customer's initial design guidelines only, please check the approval data sheet before ordering. *Toroidal, Oval, Clamp Shape or other customized designs are available.

100KHz Performance Curve



图一:

fig1 AC B-H Magnetic Hysteresis Loop

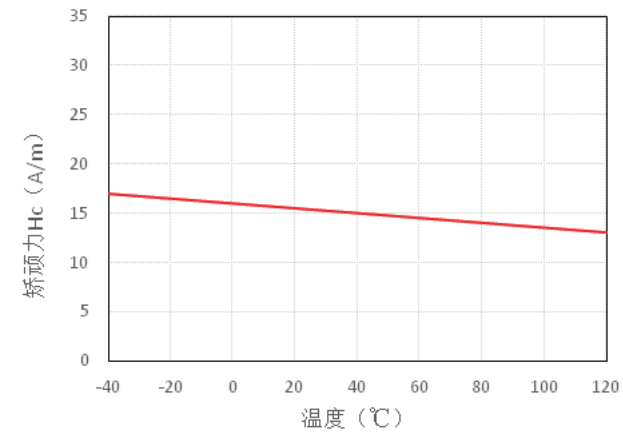


fig2 Realitive Change of Coercivity H_c vs Temperature

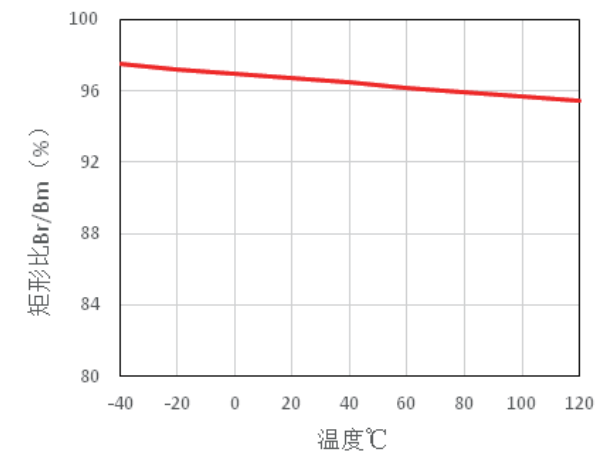


fig3 Realitive Change of Squareness Ratio (B_r/B_m) vs Temperature

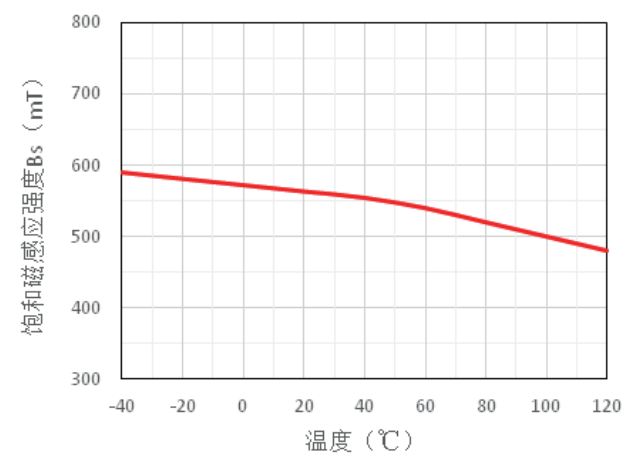


fig4 Realitive Change of Saturate Magnetic Flux Density (B_s) vs Temperature

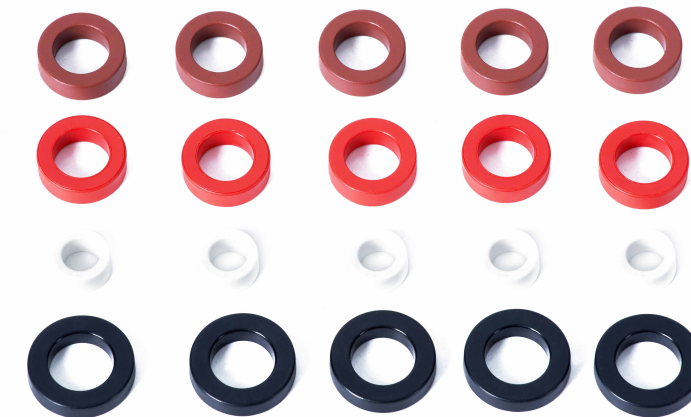
CACO-02 Co-based Amorphous Core

Application

- DC Immune Single CT Core
- Network Transformer
- Gate Drive Transformer

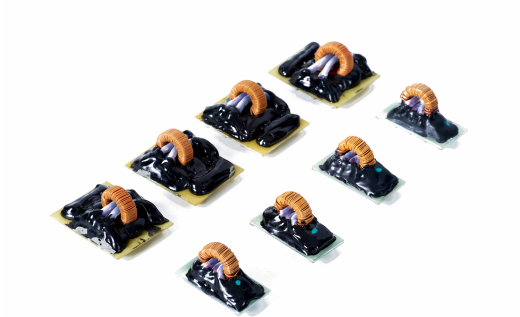
Features

- Closed loop magnetic circuit: low sensitivity to interference sources, no shield required in generally.
- Very low linear phase error, high linearity and easy to compensate
- Very low temperature dependence



Performance Index

Description	Item-symbol	Refer Value
(25°C) Saturate Magnetic Flux Density (25°C)	T	0.9
(25°C) Saturate Magnetostriction (25°C)	λs	<0.2×10 ⁻⁶
(°C) Curie Temperature	Tc	485
25°C) Two-stage Magnetic Flux Density (25°C)	△Bss	1.8
(90°C) Two-stage Magnetic Flux Density (90°C)	△Bss	1.7
(120°C) Two-stage Magnetic Flux Density (120°C)	△Bss	1.35
(°C) Continuous maximum working temperature	/	90



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P/N	Core Dimension				Cross section area	Magnetic Iron Path Length	Weight	Inductance 10kHz/ 0.1V, 1Ts
	Bare Core Dimension OD X ID X H (mm)	Finished Core Dimension						
		OD(mm) (max)	ID(mm) (min)	H(mm) (max)	Ae (cm²)	Le (cm)	m (g)	AL (μH)
CACO-02-0013-f	7.8x3.8x3.8	8.5	3.4	4.4	0.064	1.82	0.89	0.65
CACO-02-0017-f	22x17x6.6	22.5	16.3	7.4	0.138	6.12	6.43	0.42
CACO-02-0016-f	24.5x15.5x7	25	14.8	7.8	0.297	6.12	13.85	0.80
CACO-02-0015-f	25x20x6.5	26.5	19.3	7.3	0.138	7.06	7.42	0.36
CACO-02-0019-f	25.5x19x9	27	18.3	9.8	0.248	6.98	13.21	0.65
CACO-02-0018-f	30.4x22.4x8	32	22.7	8.8	0.272	8.29	17.14	0.6
CACO-02-0014-f	40x30x1.5	41.5	29.3	2.3	0.064	10.99	5.33	0.1

Performance Curve

