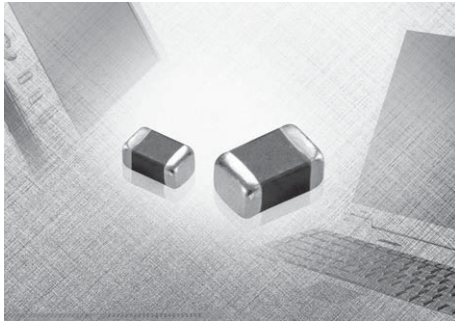


Power Inductor; CIG Series

DC-DC converter Type



General Features

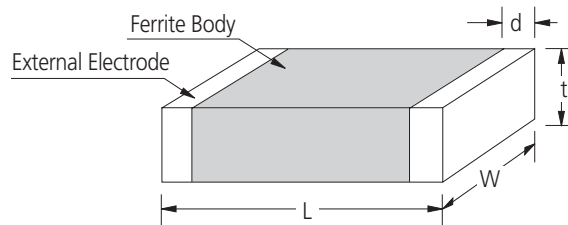
- Low profile (1.0mm max height)
- Magnetically shielded and Low DC resistance
- Lead free termination and internal electrode
- Monolithic structure for high reliability

Application

- Mobile phones, DSC, DVC, PDA etc. for DC-DC Converter

Operating Temp	-40~+125°C (Including self - temperature rise)
Storage Temp	-40~+125°C

Dimensions



SIZE CODE	Dimension (mm)			
	L	W	t	d
CIG10F Series	1.6±0.15	0.8±0.15	0.5 max	0.1~0.5
CIG10W Series	1.6±0.15	0.8±0.15	0.8±0.15	0.1~0.5
CIG21F Series	2.0±0.10	1.25±0.10	0.5 max	0.2~0.7
CIG21W Series	2.0±0.20	1.25±0.20	1.0 max	0.2~0.7
CIG21L Series	2.0±0.10	1.25±0.10	1.0 max	0.2~0.7
CIG21C Series	2.0±0.10	1.25±0.10	1.0 max	0.2~0.7
CIG2MW Series	2.0±0.15	1.6±0.15	1.0 max	0.5±0.2
CIG22L Series	2.5±0.20	2.0±0.20	1.0 max	0.3~0.8
CIG22H Series(MAE)	2.5±0.20	2.0±0.20	1.0 max	0.3~0.8
CIG22H Series(MNE)	2.5±0.20	2.0±0.20	1.2 max	0.3~0.8
CIG22B Series	2.5±0.20	2.0±0.20	1.0 max	0.3~0.8

Part Numbering

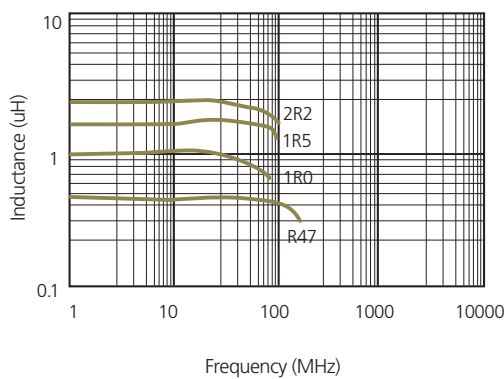
CI G 22 L 4R7 M N E
 (1) (2) (3) (4) (5) (6) (7) (8)

- (1) Chip inductor
- (2) Power inductor
- (3) Dimensions (10:1608, 21:2012, 22:2520)
- (4) Product Series (W: Normal Type, L: Low Rdc Type, F: Low profile Type, C:Choke Type
H: High Current Type, B: High Current & Low Profile Type)
- (5) Inductance (R47: 0.47uH, 2R2: 2.2uH, 4R7: 4.7uH)
- (6) Tolerance (M: ±20%)
- (7) Thickness Option (N: Standard, A: Thinner than standard, B: Thicker than standard)
- (8) Package Style (C: Paper tape / 7" reel, E: Embossed tape / 7" reel)

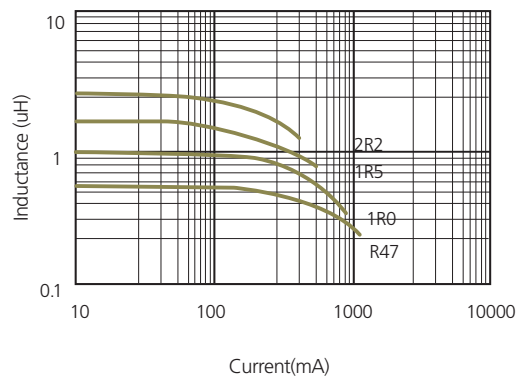
CIG 1608(0603) Type - Low Profile

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current. Idc (A) $\Delta T = 40^\circ\text{C}$
CIG10FR47MNC	0.5max	$0.47 \pm 20\%$	$0.20 \pm 30\%$	0.80
CIG10F1R0MNC	0.5max	$1.0 \pm 20\%$	$0.30 \pm 30\%$	0.70
CIG10F1R5MNC	0.5max	$1.5 \pm 20\%$	$0.35 \pm 30\%$	0.60
CIG10F2R2MNC	0.5max	$2.2 \pm 20\%$	$0.45 \pm 30\%$	0.50

INDUCTANCE



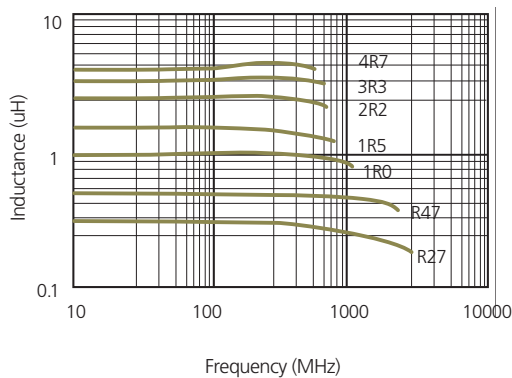
DC BIAS CHARACTERISTIC



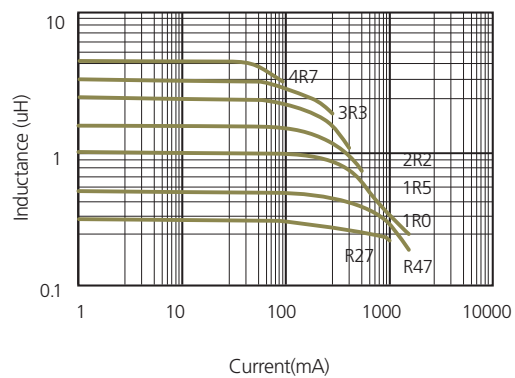
CIG 1608(0603) Type

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current. Idc (A) $\Delta T = 40^\circ\text{C}$
CIG10WR27MNC	0.8 ± 0.15	$0.27 \pm 25\%$	$0.12 \pm 20\%$	1.30
CIG10WR47MNC	0.8 ± 0.15	$0.47 \pm 20\%$	$0.15 \pm 20\%$	1.10
CIG10W1R0MNC	0.8 ± 0.15	$1.0 \pm 20\%$	$0.20 \pm 20\%$	0.95
CIG10W1R5MNC	0.8 ± 0.15	$1.5 \pm 20\%$	$0.25 \pm 20\%$	0.80
CIG10W2R2MNC	0.8 ± 0.15	$2.2 \pm 20\%$	$0.30 \pm 20\%$	0.75
CIG10W3R3MNC	0.8 ± 0.15	$3.3 \pm 20\%$	$0.40 \pm 20\%$	0.70
CIG10W4R7MNC	0.8 ± 0.15	$4.7 \pm 20\%$	$0.50 \pm 20\%$	0.62

INDUCTANCE



DC BIAS CHARACTERISTIC

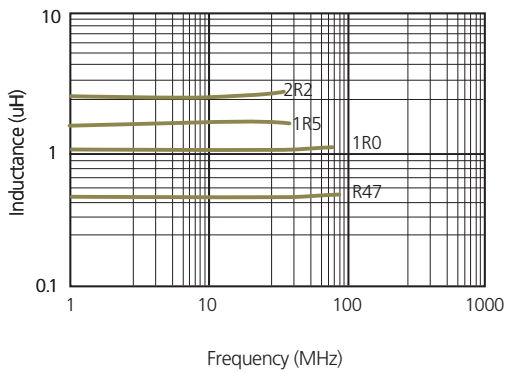


※ Test equipment: E4991A + 16092A

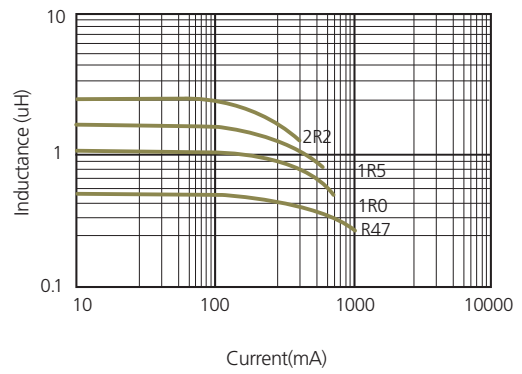
CIG 2012(0805) Type - Low Profile

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current. Idc (A) $\Delta T = 40^\circ\text{C}$
CIG21FR47MNC	0.5max	$0.47 \pm 20\%$	$0.12 \pm 25\%$	1.10
CIG21F1R0MNC	0.5max	$1.0 \pm 20\%$	$0.19 \pm 25\%$	0.80
CIG21F1R5MNC	0.5max	$1.5 \pm 20\%$	$0.25 \pm 25\%$	0.70
CIG21F2R2MNC	0.5max	$2.2 \pm 20\%$	$0.34 \pm 25\%$	0.60

INDUCTANCE



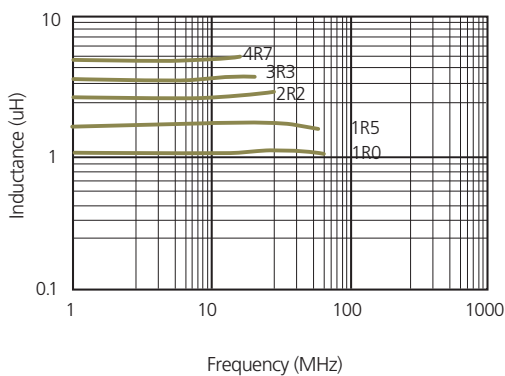
DC BIAS CHARACTERISTIC



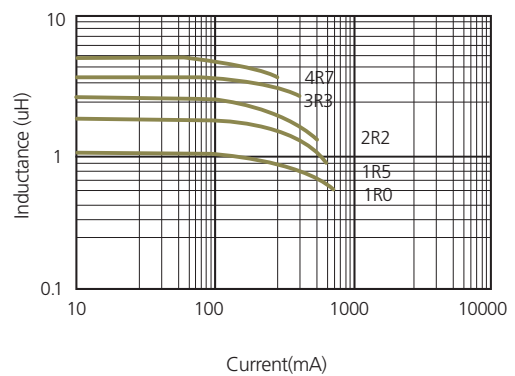
CIG 2012(0805) Type

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current. Idc (A) $\Delta T = 40^\circ\text{C}$
CIG21W1R0MNE	1.0max	$1.0 \pm 25\%$	$0.133 \pm 20\%$	1.05
CIG21W1R5MNE	1.0max	$1.5 \pm 25\%$	$0.15 \pm 20\%$	0.96
CIG21W2R2MNE	1.0max	$2.2 \pm 20\%$	$0.20 \pm 20\%$	0.81
CIG21W3R3MNE	1.0max	$3.3 \pm 20\%$	$0.25 \pm 20\%$	0.73
CIG21W4R7MNE	1.0max	$4.7 \pm 20\%$	$0.30 \pm 20\%$	0.65

INDUCTANCE



DC BIAS CHARACTERISTIC

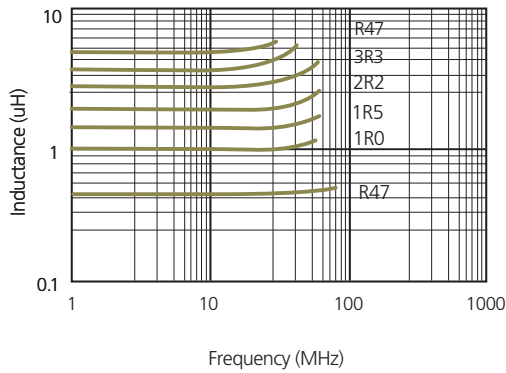


※ Test equipment: E4991A + 16092A

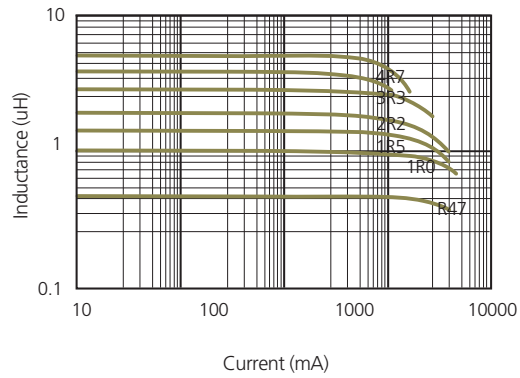
CIG 2012(0805) Type - Low RDC

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current. Idc (A) $\Delta T = 40^\circ\text{C}$
CIG21LR47MNE	1.0max	$0.47 \pm 20\%$	$0.08 \pm 20\%$	1.30
CIG21L1R0MNE	1.0max	$1.0 \pm 20\%$	$0.11 \pm 20\%$	1.15
CIG21L1R2MNE	1.0max	$1.2 \pm 20\%$	$0.12 \pm 20\%$	1.10
CIG21L1R5MNE	1.0max	$1.5 \pm 20\%$	$0.14 \pm 20\%$	1.05
CIG21L2R2MNE	1.0max	$2.2 \pm 20\%$	$0.16 \pm 20\%$	0.95
CIG21L3R3MNE	1.0max	$3.3 \pm 20\%$	$0.22 \pm 20\%$	0.80
CIG21L4R7MNE	1.0max	$4.7 \pm 20\%$	$0.26 \pm 20\%$	0.75

INDUCTANCE



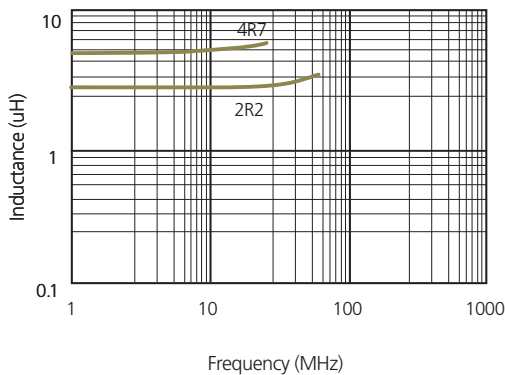
DC BIAS CHARACTERISTIC



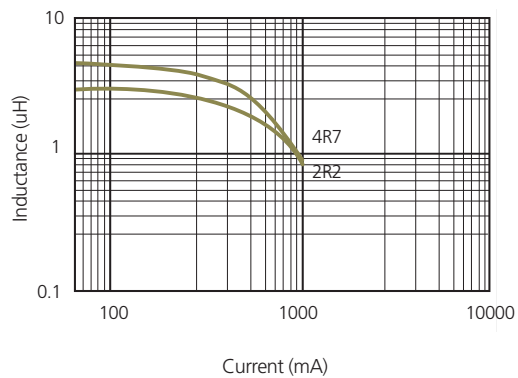
CIG 2012(0805) Type - Choke

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current. Idc (A) $\Delta T = 40^\circ\text{C}$
CIG21C2R2MNE	1.0max	$2.2 \pm 20\%$	$0.25 \pm 20\%$	0.80
CIG21C4R7MNE	1.0max	$4.7 \pm 20\%$	$0.433 \pm 20\%$	0.58

INDUCTANCE



DC BIAS CHARACTERISTIC

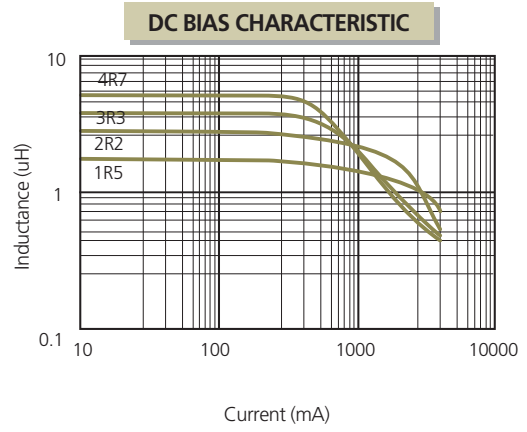
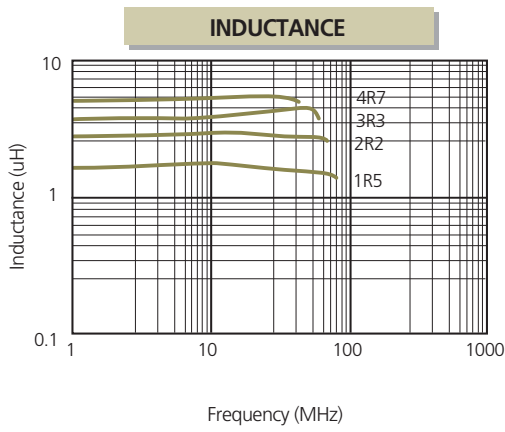


※Test equipment: E4991A + 16092A



CIG 2016 Type

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current. Idc (A) $\Delta T = 40^\circ\text{C}$
CIG2MW1R5NNE	1.0max	$1.5 \pm 30\%$	$0.11 \pm 25\%$	1.2
CIG2MW2R2NNE	1.0max	$2.2 \pm 30\%$	$0.11 \pm 25\%$	1.2
CIG2MW3R3NNE	1.0max	$3.3 \pm 30\%$	$0.12 \pm 25\%$	1.2
CIG2MW4R7NNE	1.0max	$4.7 \pm 30\%$	$0.14 \pm 25\%$	1.1

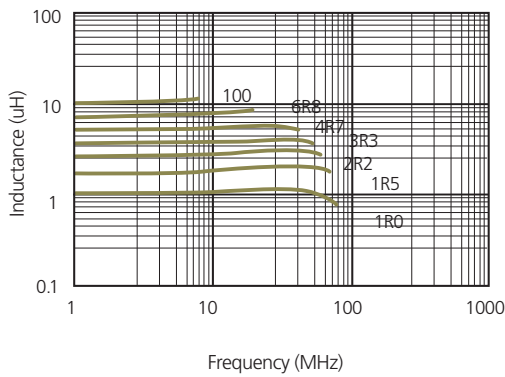


※Test equipment: E4991A + 16092A

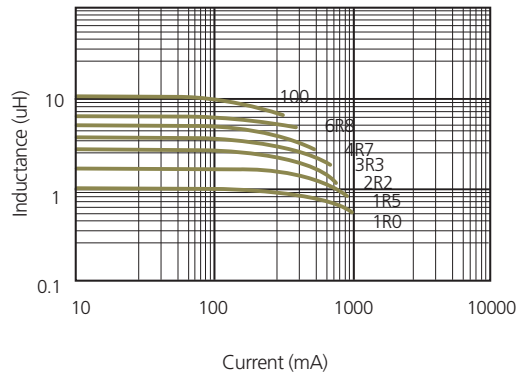
CIG 2520(1008) Type - Low RDC

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current. Idc (A) $\Delta T = 40^\circ C$
CIG22L1R0MNE	1.0max	1.0 \pm 20 %	0.06 \pm 25 %	1.6
CIG22L1R2MNE	1.0max	1.2 \pm 20 %	0.065 \pm 25 %	1.5
CIG22L1R5MNE	1.0max	1.5 \pm 20 %	0.07 \pm 25 %	1.5
CIG22L2R2MNE	1.0max	2.2 \pm 20 %	0.08 \pm 25 %	1.3
CIG22L3R3MNE	1.0max	3.3 \pm 20 %	0.10 \pm 25 %	1.2
CIG22L4R7MNE	1.0max	4.7 \pm 20 %	0.11 \pm 25 %	1.1
CIG22L6R8MNE	1.0max	6.8 \pm 20 %	0.203 \pm 30 %	0.8
CIG22L100MNE	1.0max	10.0 \pm 20 %	0.323 \pm 30 %	0.6

INDUCTANCE



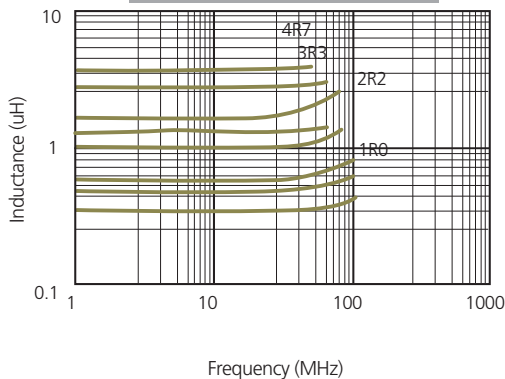
DC BIAS CHARACTERISTIC



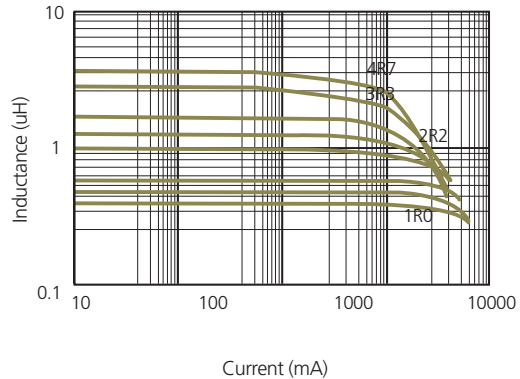
CIG 2520(1008) Type - High Current and Low Profile

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current. Idc (A) $\Delta T = 40^\circ C$
CIG22B1R0MNE	1.0max	1.0 \pm 20 %	0.125 \pm 20 %	1.2
CIG22B2R2MNE	1.0max	2.2 \pm 20 %	0.183 \pm 20 %	1.1
CIG22B3R3MNE	1.0max	3.3 \pm 20 %	0.216 \pm 20 %	1.05
CIG22B4R7MNE	1.0max	4.7 \pm 20 %	0.25 \pm 20 %	1.0

INDUCTANCE



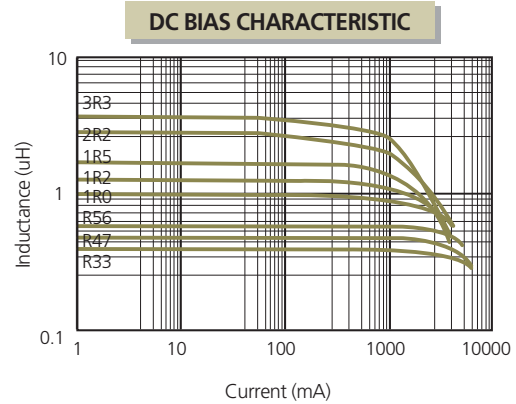
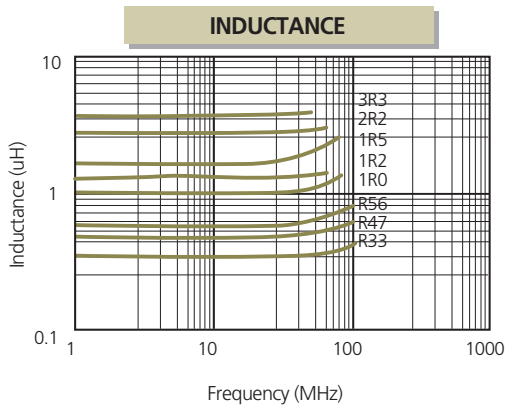
DC BIAS CHARACTERISTIC



※ Test equipment: E4991A + 16092A

CIG 2520(1008) Type - High Current(1.0t)

Part No.	Thickness(mm)	Inductance (μH) @1MHz	DC Resistance (Ω)	Rated Current. Idc (A) $\Delta T = 40^\circ\text{C}$ (typical)
CIG22HR33MAE	1.0max	$0.33 \pm 20\%$	$0.044 \pm 30\%$	2.95
CIG22HR47MAE	1.0max	$0.47 \pm 20\%$	$0.044 \pm 30\%$	2.90
CIG22HR56MAE	1.0max	$0.56 \pm 20\%$	$0.055 \pm 30\%$	2.70
CIG22H1R0MAE	1.0max	$1.0 \pm 20\%$	$0.065 \pm 20\%$	2.30
CIG22H1R2MAE	1.0max	$1.2 \pm 20\%$	$0.065 \pm 20\%$	2.40
CIG22H1R5MAE	1.0max	$1.5 \pm 20\%$	$0.074 \pm 20\%$	2.05
CIG22H2R2MAE	1.0max	$2.2 \pm 20\%$	$0.138 \pm 20\%$	1.50
CIG22H3R3MAE	1.0max	$3.3 \pm 20\%$	$0.138 \pm 20\%$	1.40



CIG 2520(1008) Type - High Current(1.2t)

Part No.	Thickness(mm)	Inductance (μH) @1MHz	DC Resistance (Ω)	Rated Current. Idc (A) $\Delta T = 40^\circ\text{C}$ (typical)
CIG22H1R0MNE	1.2max	$1.0 \pm 20\%$	$0.080 \pm 25\%$	2.0
CIG22H1R2MNE	1.2max	$1.2 \pm 20\%$	$0.094 \pm 20\%$	1.9
CIG22H1R5MNE	1.2max	$1.5 \pm 20\%$	$0.104 \pm 20\%$	1.6
CIG22H2R2MNE	1.2max	$2.2 \pm 20\%$	$0.116 \pm 20\%$	1.6
CIG22H3R3MNE	1.2max	$3.3 \pm 20\%$	$0.133 \pm 20\%$	1.5
CIG22H4R7MNE	1.2max	$4.7 \pm 20\%$	$0.233 \pm 20\%$	1.0

