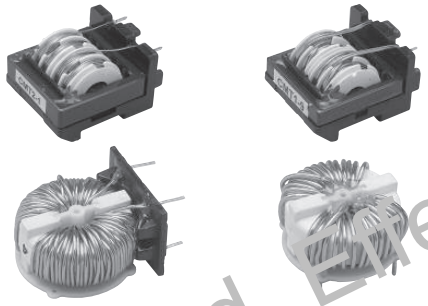
CMT

Common mode inductors, through-hole



Product description

- Four sizes of through-hole off-line common mode inductors
- Inductance range from 0.53 - 66 mH
- Current range up to 6.5 Amps
- Noise attenuation up to 68 dB
- Frequency range up to 6 MHz
- Meets UL94V-0 flammability standard
- Ferrite core material

Applications

- Protects AC input from effects of switching regulators
- Off-line power supplies
- EMI filters
- DC/DC converters
- Computer, TV, audio and office equipment

Environmental data

- Storage temperature range (component): -40°C to +125°C
- Operating temperature range: -40°C to +125°C (ambient + self-temperature rise).

RoHS

Discontinued, Effective March 1, 2016 or until inventory is depleted. No recommended replacement available

Powering Business Worldwide

Product specifications

Part number	OCL (mH) minimum (1-2)	OCL (mH) minimum (4-3)	I rms. Amperes max	DCR (Ω) typ @ 20°C (1-2)	DCR (Ω) typ @ 20°C (4-3)
CMT1-1-R	66.0	66.0	0.74	1.20	1.20
CMT1-2-R	49.0	49.0	0.88	0.85	0.85
CMT1-3-R	28.0	28.0	1.13	0.50	0.50
CMT1-4-R	21	21	1.37	0.35	0.35
CMT1-5-R	13	13	1.76	0.20	0.20
CMT1-6-R	7.50	7.50	2.27	0.13	0.13
CMT1-7-R	4.20	4.20	2.89	0.08	0.08
CMT1-8-R	2.40	2.40	3.85	0.045	0.045
CMT1-9-R	1.85	1.85	4.53	0.033	0.033
CMT1-10-R	0.94	0.94	6.05	0.018	0.018
CMT2-1-R	30	30	1.50	0.350	0.350
CMT2-2-R	20	20	1.95	0.220	0.220
CMT2-3-R	12	12	2.45	0.135	0.135
CMT2-4-R	8.0	8.0	2.8[illegible]	0.100	0.100
CMT2-5-R	6.0	6.0	3.40	0.070	0.070
CMT2-6-R	4.8	4.8	3.95	0.053	0.053
CMT2-7-R	3.2	3.2	4.40	0.042	0.042
CMT2-8-R	2.4	2.1	4.75	0.037	0.037
CMT2-9-R	2.0	2.0	5.45	0.028	0.028
CMT2-10-R	1.6	1.6	5.75	0.026	0.026
CMT3-1-R	5.4	5.4	2.0	0.12	0.12
CMT3-2-R	3.5	3.5	2.6	0.08	0.08
CMT3-3-R	2.7	2.7	3.0	0.055	0.055
CMT3-4-R	1.3	1.3	4.0	0.032	0.032
CMT3-5-R	0.92	0.92	5.[illegible]	0.021	0.021
CMT3-6-R	0.53	0.53	6.5	0.013	0.013
CMT4-1-R	5.4	5.4	2.0	0.12	0.12
CMT4-2-R	3.5	3.5	2.6	0.08	0.08
CMT4-3-R	2.7	2.7	3.0	0.055	0.055
CMT4-4-R	1.3	1.3	4.0	0.032	0.032
CMT4-5-R	0.92	0.92	5.0	0.021	0.021
CMT4-6-R	0.53	0.53	6.5	0.013	0.013

Discontinued. Effective March 1, 2016 or until inventory is depleted. No recommended replacement available

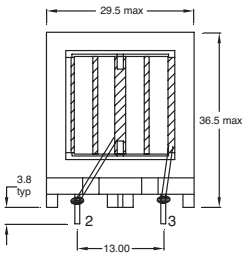
Definitions:
OCL = Open Circuit Inductance
DCR = Direct Current Resistance
Irms = rms current for 40°C max temperature rise at worst case ambient temperature of 85°C.

Electrical Characteristics:
OCL (1-2) 0.10Vrms, 10kHz, 0.0Adc: (See Chart)
OCL (4-3) 0.10Vrms, 10kHz, 0.0Adc: (See Chart)
DCR (1-2) typ @ 20°C: (See Chart)
DCR (4-3) typ @ 20°C: (See Chart)
Hipot rating: winding to winding: 2400 Vac for 1 second. Turns Ratio: (1-2):(4-3) 1:1

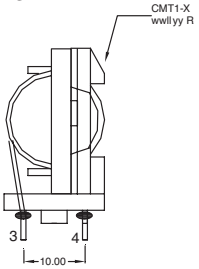
Dimensions–mm

CMT1

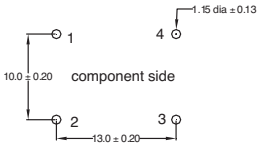
FRONT VIEW



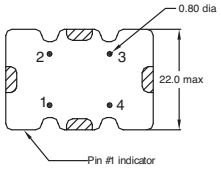
SIDE VIEW



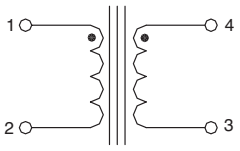
RECOMMENDED PCB LAYOUT



BOTTOM VIEW

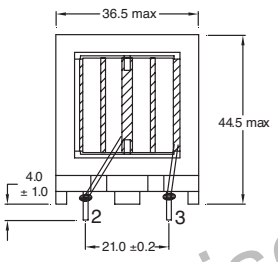


SCHEMATIC

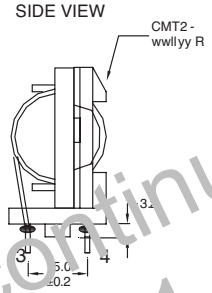


CMT2

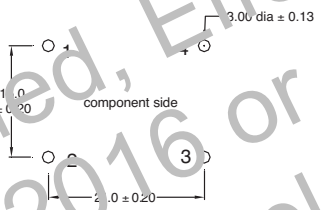
FRONT VIEW



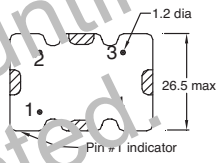
SIDE VIEW



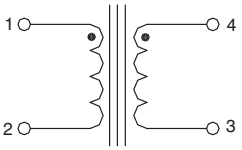
RECOMMENDED PCB LAYOUT



BOTTOM VIEW

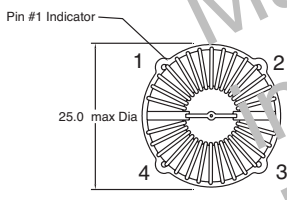


SCHEMATIC

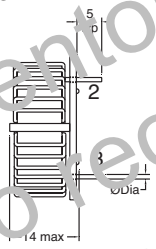


CMT3

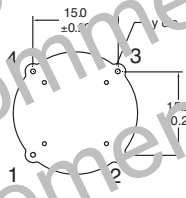
TOP VIEW



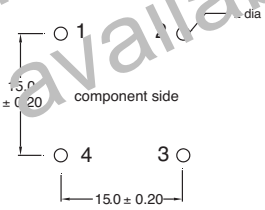
SIDE VIEW



BOTTOM VIEW



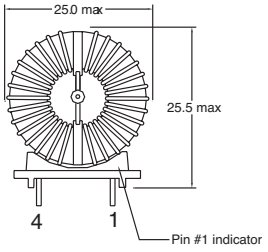
RECOMMENDED PCB LAYOUT



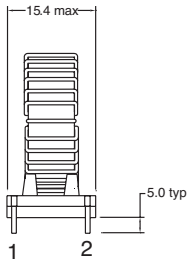
	"Y" Dia ref	"Z" Dia ref
CMT3-1	0.58	0.83
CMT3-2	0.64	0.90
CMT3-3	0.71	0.97
CMT3-4	0.80	1.06
CMT3-5	0.89	1.15
CMT3-6	0.99	1.25

CMT4

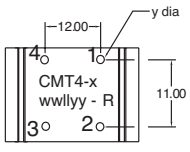
FRONT VIEW



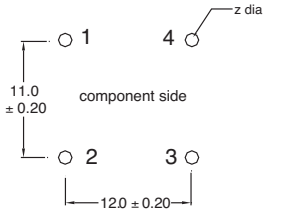
SIDE VIEW



BOTTOM VIEW



RECOMMENDED PCB LAYOUT



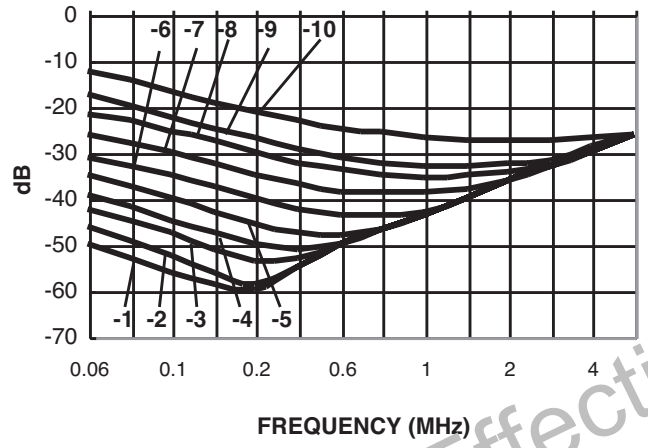
	"Y" Dia ref	"Z" Dia ref
CMT4-1	0.58	0.83
CMT4-2	0.64	0.90
CMT4-3	0.71	0.97
CMT4-4	0.80	1.06
CMT4-5	0.89	1.15
CMT4-6	0.99	1.25

(1) All Dimensions are in millimeters unless otherwise specified
(2) Tolerances are +/- 0.20mm unless stated otherwise.
(3) wwllyy = (Date Code) R = (Revision Level)
Schematic is the same for all the series

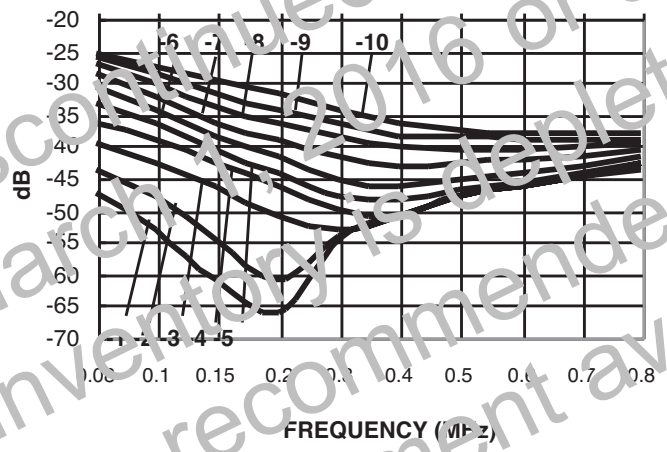
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Attenuation Curves

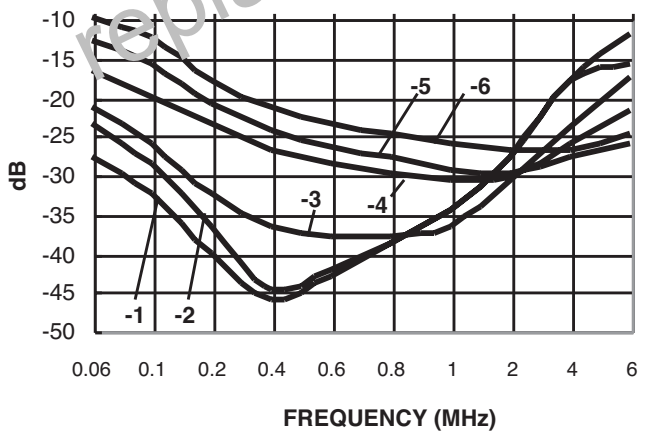
Attenuation CMT1



Attenuation CMT2

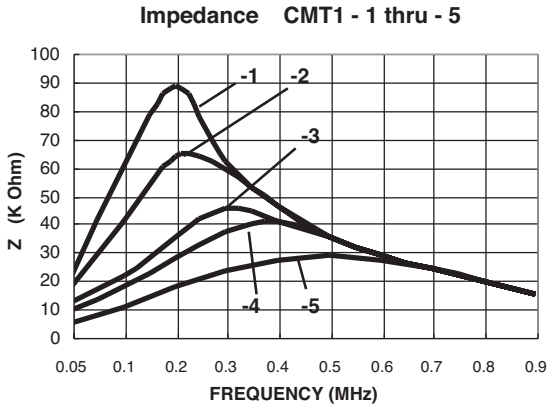


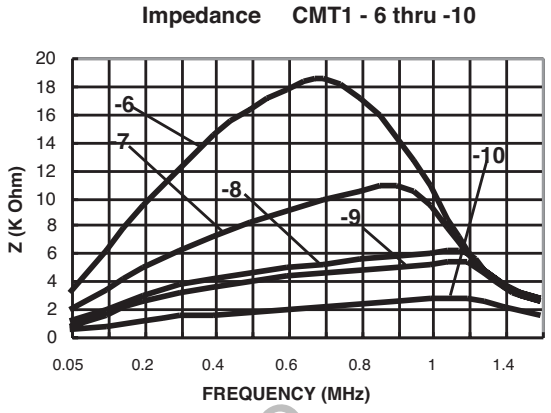
Attenuation CMT3 & CMT4

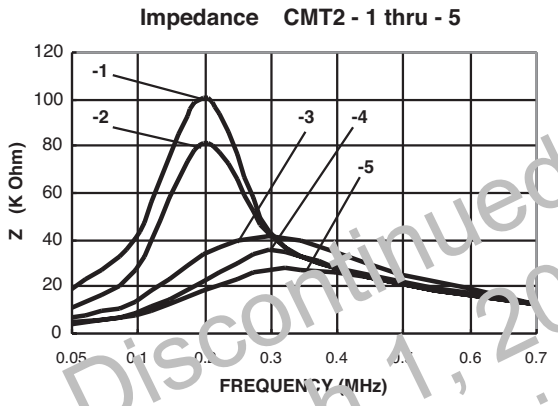


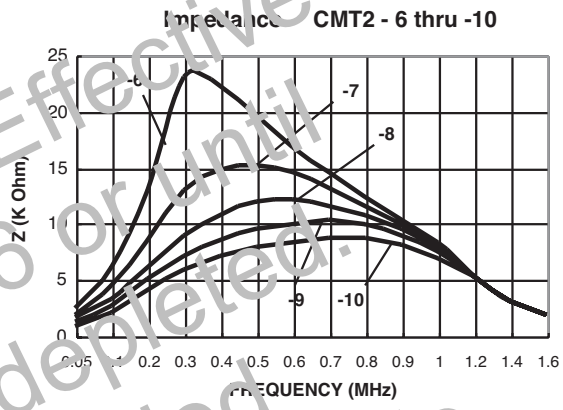
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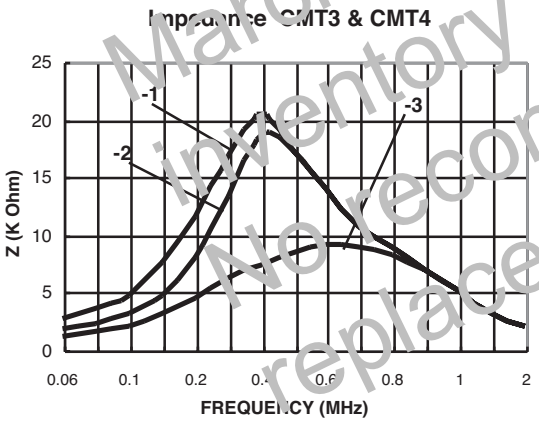
Impedance Curves

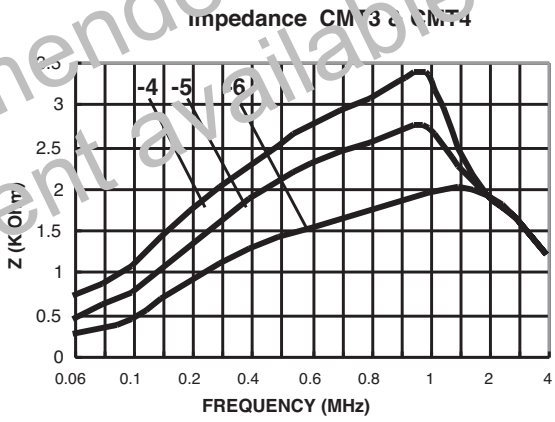






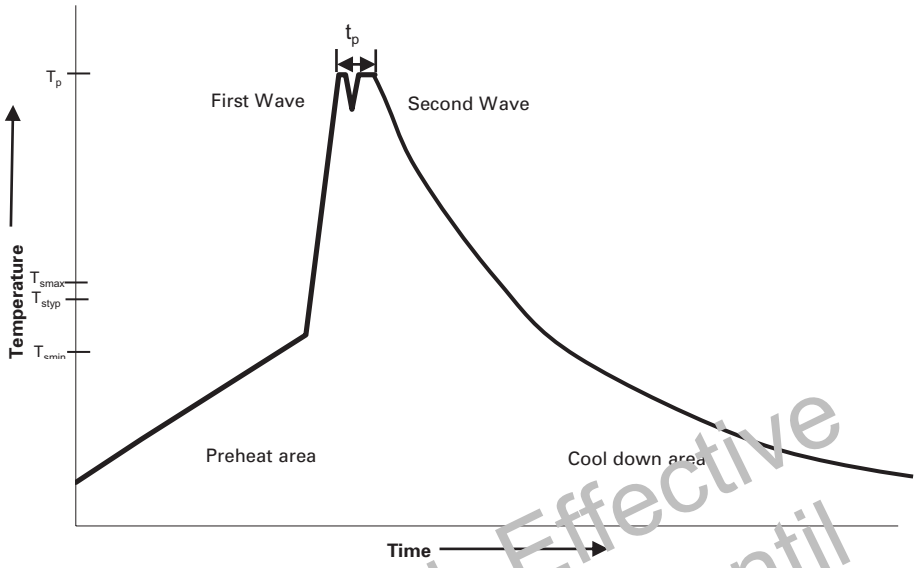






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Wave solder profile



Reference EN 61760-1:2006

Profile Feature	Standard SnPb Solder	Lead (Pb) Free Solder
Preheat • Temperature min. (T_{smin})	100°C	100°C
• Temperature typ. (T_{styp})	120°C	120°C
• Temperature max. (T_{smax})	130°C	130°C
• Time (T_{smin} to T_{smax}) (t_s)	70 seconds	70 seconds
Δ preheat to max Temperature	150°C max.	150°C max.
Peak temperature (T_P)*	235°C – 260°C	250°C – 260°C
Time at peak temperature (t_p)	10 seconds max 5 seconds max each wave	10 seconds max 5 seconds max each wave
Ramp-down rate	~ 2 K/s min ~3.5 K/s typ ~5 K/s max	~ 2 K/s min ~3.5 K/s typ ~5 K/s max
Time 25°C to 25°C	4 minutes	4 minutes

Discontinued, Effective March 1, 2016 or until inventory is depleted. No recommended replacement available

Manual solder

350°C, 4-5 seconds. (by soldering iron), generally manual, hand soldering is not recommended.

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