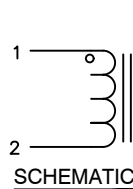
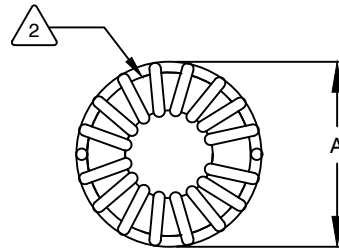


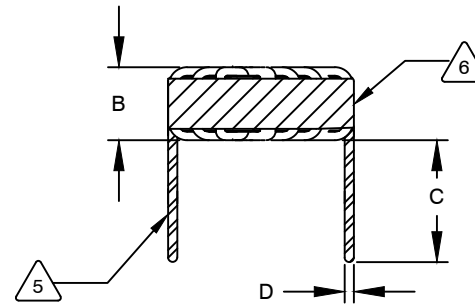
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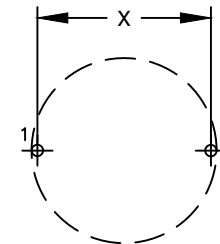
**SCHEMATIC**



**BOTTOM VIEW**



**FRONT VIEW**



**MOUNTING HOLES PATTERN**

| DIMENSIONAL TOLERANCES<br>INCHES [MM] |                 |                 |                 |                 |
|---------------------------------------|-----------------|-----------------|-----------------|-----------------|
| A<br>MAX                              | B<br>MAX        | C<br>MIN        | D<br>REF        | X<br>REF        |
| 0.94<br>[23.88]                       | 0.53<br>[13.46] | 0.50<br>[12.70] | 0.072<br>[1.83] | 0.78<br>[19.81] |

| REVISION HISTORY |     |                              |             |            |               |
|------------------|-----|------------------------------|-------------|------------|---------------|
| REV              | ECN | DESCRIPTION                  | SIGN & DATE |            |               |
|                  |     |                              | BY          | DATE       | CHK DATE      |
| B                | —   | ELEC. AND MECH. SPECS CHANGE | AK          | 11/30/12   | JLAU 11/30/12 |
| C                | —   | UPDATED SPEC.                | TN          | 08/01/2020 | JL 08/01/2020 |

**DC BIAS TABLE**

| DC<br>BIAS<br>(AMP) | L@ 1KHz<br>(REF) |
|---------------------|------------------|
| 0                   | 2.9uH            |
| 5                   | 2.9uH            |
| 10                  | 2.8uH            |
| 15                  | 2.5uH            |
| 20                  | 2.1uH            |
| 25                  | 2.0uH            |

7 BUILD TO RoHS COMPLIANCE AND LEAD FREE.

USING A PERMANENT MARKING METHOD

MARK PART NUMBER, REVISION AND DATE CODE

WRAP INDUCTOR WITH 3M # 79 OR EQUAL



(I.E. COIL MUST REST FLAT ON PCB). LEADS MUST BE TANGENT TO THE CORE  
REMOVE INSULATION AND TIN LEADS 0.5 INCH, FLUSH WITH THE COIL EDGE



WIND COILS EVENLY SPACED AROUND THE CORE

CONSTRUCTION:

THESE SPECIFICATIONS ARE BASED ON LOW RIPPLE CURRENT

WEIGHT: 14 GRAMS TYPICAL

INTERWINDING CAPACITANCE = 9.4pF TYP @ SRF

SRF = 30 MHz TYPICAL

|Z| = 867 OHMS TYP @ SRF

RECOMMENDED AMBIENT OPERATING TEMP: -40°C TO 155°C

HI-POT TEST FOR WINDING TO CORE ISOLATION = 500VDC MIN.

INDUCTOR CURRENT RATING : 25 AMPS, 40°C TEMP. RISE WITH SOME AIR FLOW

DCR = 2.0 MILLI-OHMS MAX.

INDUCTOR DC BIAS: SEE TABLE ON THE RIGHT

INDUCTANCE = 2.8uH±15% @ 0 AMP DC BIAS, 1.0 KHz, 250mV

SPECIFICATIONS: @ 25°C:

3

WIRE: UL RECOGNIZED 200°C RATED MAGNET WIRE

CORE: POWDERED TOROIDAL CORE, CWS BYTE MARK OR OTHER APPROVED PART



1 MATERIAL: UL RECOGNIZED 94V-0 FOR FLAMMABILITY, RATING CLASS B (130°C MIN.) REQUIRED

ANY TOLERANCE. THIS DIM. CAN VARY A LITTLE FROM PART TO PART.

"TYP" IN DIM. TOL. TABLE REFERS TO A NON-CRITICAL TYPICAL (AVERAGE) DIM. WITHOUT

NOTES: UNLESS OTHERWISE STATED, READ NOTES FROM BOTTOM UP.

CAGE CODE: 5DME2

| UNLESS OTHERWISE SPECIFIED                          |  |
|-----------------------------------------------------|--|
| DIMENSIONING AND TOLERANCE PER ANSI Y14.5M          |  |
| ALL DIMENSIONS ARE IN INCHES AND [MILLIMETERS].     |  |
| TOLERANCE INCHES:<br>.XXX=±.005 .XX=±.015 <1=±0°30' |  |
| TOLERANCE METRICS:<br>.XXX=±.127 .XX=±.38 <1=±0°30' |  |
| ANGLE PROJECTION                                    |  |
| DO NOT SCALE DRAWING                                |  |

|            |  |          |        |                                                                                                                    |  |              |  |
|------------|--|----------|--------|--------------------------------------------------------------------------------------------------------------------|--|--------------|--|
| CODE IDENT |  | MFG. P/N |        | DESCRIPTION                                                                                                        |  | ITEM NO.     |  |
| PARTS LIST |  |          |        |                                                                                                                    |  |              |  |
| AUTOCAD    |  | X        |        | <b>COILWS COM, INC</b><br>www.coilws.com<br>CWS Coil Winding Specialist.<br>353 W. Grove Ave.<br>Orange, CA. 92865 |  |              |  |
| SOLIDWORKS |  |          |        |                                                                                                                    |  |              |  |
| SIGN       |  | DATE     |        |                                                                                                                    |  |              |  |
| DRAWN      |  | KCL      | 4/9/09 | TITLE:<br>TOROIDAL POWER INDUCTOR<br>2.8uH, 25.0 Amps, Horizontal                                                  |  |              |  |
| CHECKED    |  | AM       | 4/9/09 |                                                                                                                    |  |              |  |
| ENGR.      |  | KCL      | 4/9/09 |                                                                                                                    |  |              |  |
| APPR.      |  | KCL      | 4/9/09 | SIZE DWG. NO.                                                                                                      |  | REV          |  |
|            |  |          |        | B HF166-2R8M-25.0AH                                                                                                |  | C            |  |
|            |  |          |        | SCALE 2=1                                                                                                          |  | SHEET 1 OF 1 |  |