

SCHEMATIC

7 BUILT TO ROHS COMPLIANCE AND LEAD FREE.

6 MARK PART NUMBER AND REVISION WHERE SHOWN

5 VARNISH PART AND CURE
APPLY SILICONE WHERE SHOWN

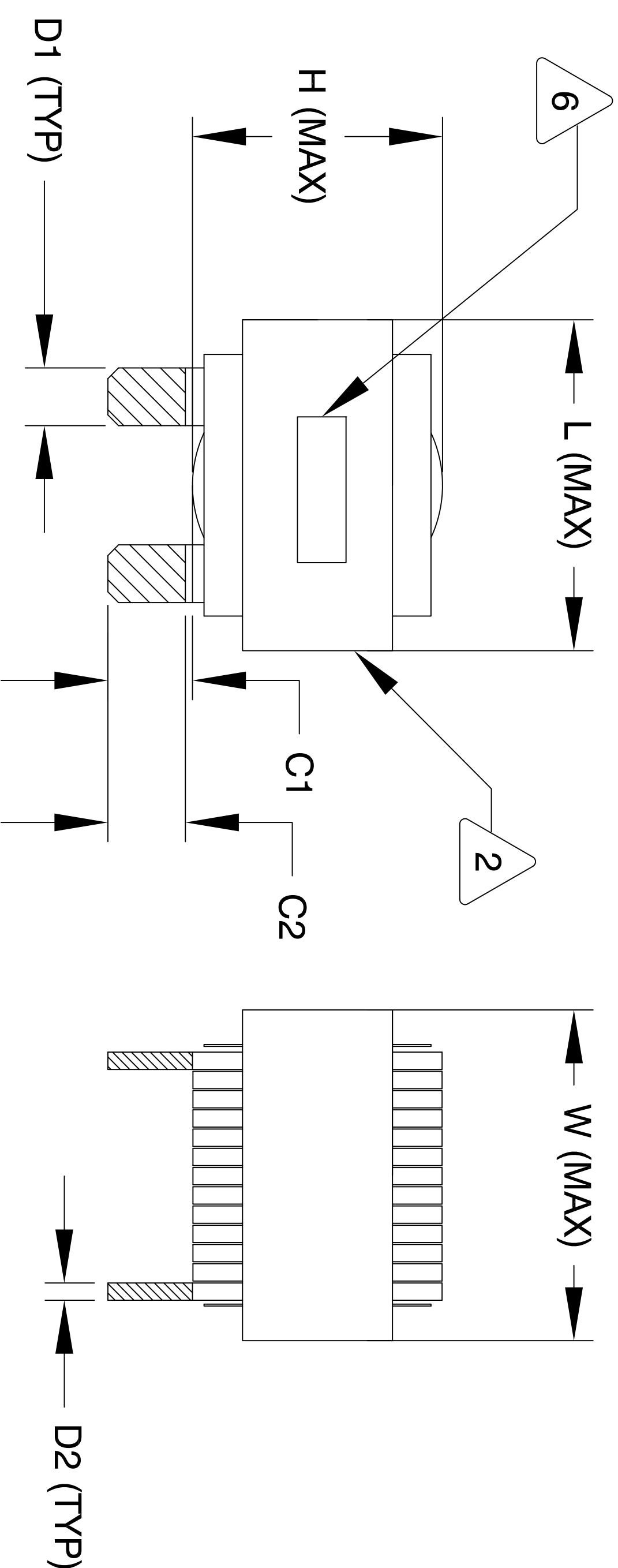
4 WRAP TAPE AROUND CORES
WITH CORES AND NOMEX SPACERS
ASSEMBLE PRE FORMED FLAT HELICAL COIL
CONSTRUCTION

3 VARNISH DOLPH or EQUAL
SILICONE DOW CORNING OR EQUAL
NOMEX SPACERS FOR SIDE AND CENTER LEG OF CORES
OUTER WRAP: 3M GLASS OR EQUAL
WIRE: UL RECOGNIZED 200°C RATED MAGNET WIRE
CORE: COMPACTED POWDERED CORE

WEIGHT: 430 GRAM (TYP)
MAX INDUCTOR TEMP RATING: 200°C
RECOMMENDED OPERATING TEMP: -40°C TO 85°C
HI-POT TEST FOR WINDING TO CORE ISOLATION. 1000VDC @ 2mA, 1 MIN
INTERWINDING CAPACITANCE @ 10KHZ = 10pF TYP @ SRF
|Z| = 138 KILO-OHM TYP @ SRF
SRF = 5 MHZ TYP
RATED CURRENT: 45 AMPS
DCR = 6.6 MILLI-OHM MAX.
L@DC BIAS: SEE TABLE ON RIGHT.
L = 130 uH ± 15%, MEASURED AT 10 KHZ, 0.25V, ZERO DC BIAS
SPECIFICATIONS:

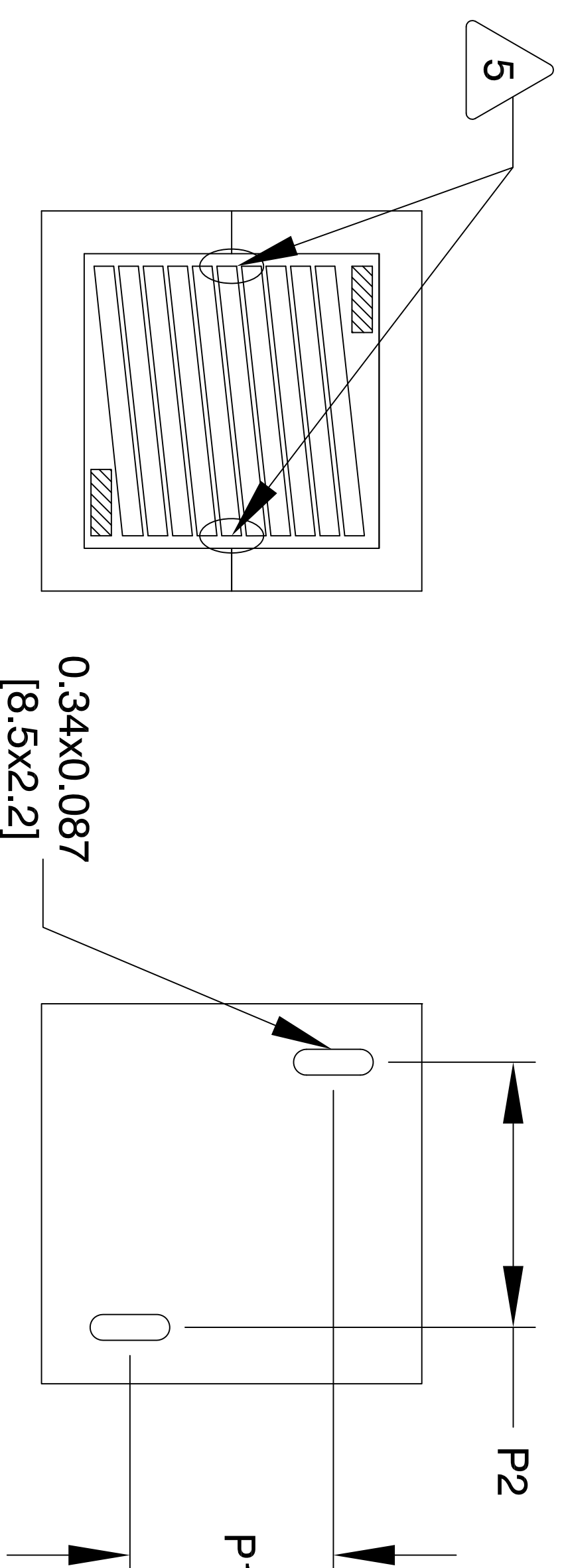
1 INSULATION CLASS 200°C REQUIRED
MATERIAL: UL RECOGNIZED 94V-0 FOR FLAMMABILITY

NOTES: UNLESS OTHERWISE SPECIFIED, READ FROM BOTTOM UP.
CAGE CODE: 5DME2



FRONT VIEW

SIDE VIEW



BOTTOM VIEW

MOUNTING HOLES PATTERN

DIMENSIONAL TOLERANCE

	mm	inch
C1	13.00±1.00	0.51 ± 0.04
C2	12.00±1.00	0.47 ± 0.04
D1	7.50 (TYP)	0.295 (TYP)
D2	1.00 (TYP)	0.04 (TYP)
L	58.0 MAX	2.29 MAX
W	58.0 MAX	2.29 MAX
H	38.0 MAX	1.50 MAX
P1	29.0±1.50	1.14±0.06
P2	35.5±1.50	1.40±0.06

DC BIAS TABLE

DC-BIAS	L @10KHz (TYPICAL)
0A	127 uH
5A	123 uH
10A	117 uH
15A	109 uH
20A	99 uH
25A	87 uH
30A	85 uH
40A	73 uH

REVISION HISTORY		SIGN & DATE				
REV	ECN	DESCRIPTION	BY	DATE	CHK	DATE
A		PRODUCTION RELEASE	RL	3/21/11	JCL	3/21/11
B		UPDATED ELECTRICAL SPEC.	TN	11/19/18	JL	11/19/18
C		UPDATED MECHANICAL SPEC.	TN	10/07/19	JL	10/07/19

QTY	CODE IDENT	MFG. P/N	DESCRIPTION	ITEM NO.
	AUTOCAD SOLIDWORKS			
	SIGN	DATE		
	DRAWN RL	2/11/11		
	CHECKED JL AU	2/11/11		
	ENGR. JL AU	2/11/11		
	APPR. JL AU	2/11/11		

UNLESS OTHERWISE SPECIFIED
DIMENSIONING AND TOLERANCE PER ANSI Y14.5M
ALL DIMENSIONS ARE IN INCHES AND [MILLIMETERS].
TOLERANCE INCHES:
.XXX=±.010 .XX=±.020
TOLERANCE METRICS:
.XXX=±.254 .XX=±.51
ANGLE PROJECTION
DO NOT SCALE DRAWING

PARTS LIST

TITLE: **High Current Helical Inductor**
130 uH, 45 Amps, Horizontal

www.coilws.com
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Coil Winding Specialist, Inc.
353 W GROVE AVE
ORANGE, CA 92865

SIZE DWG. NO. **B** ESS55244-131M-45AH
SCALE **NOT TO SCALE**

REV **C**