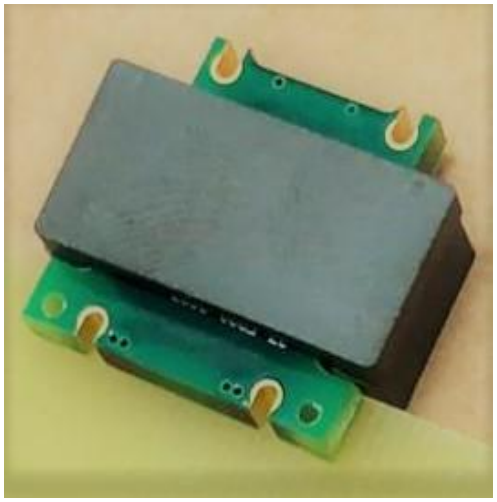
Champs 20N1 Series Active Clamp Forward Solutions LT3753



- Footprint: 17.8 x 21.0 mm
- Low Profile: 7.0mm Height
- Proven in actual DC-DC converter using LT3753 IC.
- Designs Available as Demonstration Boards.
- Optimized for Opto Isolated Active Clamp Forward & Synchronous Rectifier Converter Design
- Typical Efficiency 94%
- Aggressive Interleave planar construction -- lowest achievable Leakage Inductance.
- Multilayer PCB optimization for lowest AC resistance & Proximity Loss Effect.
- Wide variety of PNs, Designs and Turns Ratios in stock. If not listed, Contact Us.
- Integer Turns 1 thru 16 Available [Contact Us if Not Shown in Table].
- Surface Mount, Thru-Hole, Pad-to-Pad, Embedded Planar Windings as Options

20N1 Series LT3753 Based ACF Catalog

General Notes:

1. This subset of Champs' 20N1 series is earmarked to function in Opto Isolated Active Clamp Forward circuits as described by the LT3753 IC from Analog Devices.

2. In other applications the 20N1 Series can operate over a wider Vin range or configured for different Input & Output Voltage and Rated Power. Increased height allows increased power output due to higher current capability.

3. The Secondary Side SR FETs typically controlled by LT8311 Secondary Side IC. Direct Drive through Secondary winding ideal for Vin range 2:1

4. Integer Turns available from 1T to 16T. Can be used as Primary or Secondary. Mechanical configuration and outline allow for a "flex" arrangement. Contact factory for information on any power topology design.

5. All designs can be supplied with planar windings embedded in the pcb of the Main Module of the converter. Heat Sink and installed power components SM assembly and installation and incorporation into a module are also available.

1. Input Voltage Range 36-72.

Champs PN	Vin (Min)	Vin (Max)	Vout	Iout (Adc)	Pout (Watts)	Freq (KHz)	Volt-uSec [Rated]	Output Inductor PN
20N1-1202-80R	36	72	3.3	18.0	60	240	100	PQL2050-3R3-22-TH
20N1-0802-80R	36	72	5.0	12.0	60	240	100	PQL2050-4R9-14-TH
20N1-1005	36	72	12.0	5.0	60	240	130	PQI2050-20HX-TH-10m
20N1-1012	36	60	24.0	2.55	60	240	130	PQI2050-100-6-LTC

2. Input Voltage Range 18-36.

Champs PN	Vin (Min)	Vin (Max)	Vout	Iout (Adc)	Pout (Watts)	Freq (KHz)	Volt-uSec [Rated]	Output Inductor PN
20N1-0702-40R	18	36	3.3	18.0	60	240	90	PQL2050-3R3-22-TH
20N1-0603-40R	18	36	5.0	12.0	60	240	80	PQL2050-4R9-14-TH
20N1-0606-40R	18	36	12.0	5.0	60	240	80	PQI2050-20HX-TH-10m
20N1-0612-40R	18	36	24.0	2.5	60	240	80	PQI2050-100-6-LTC

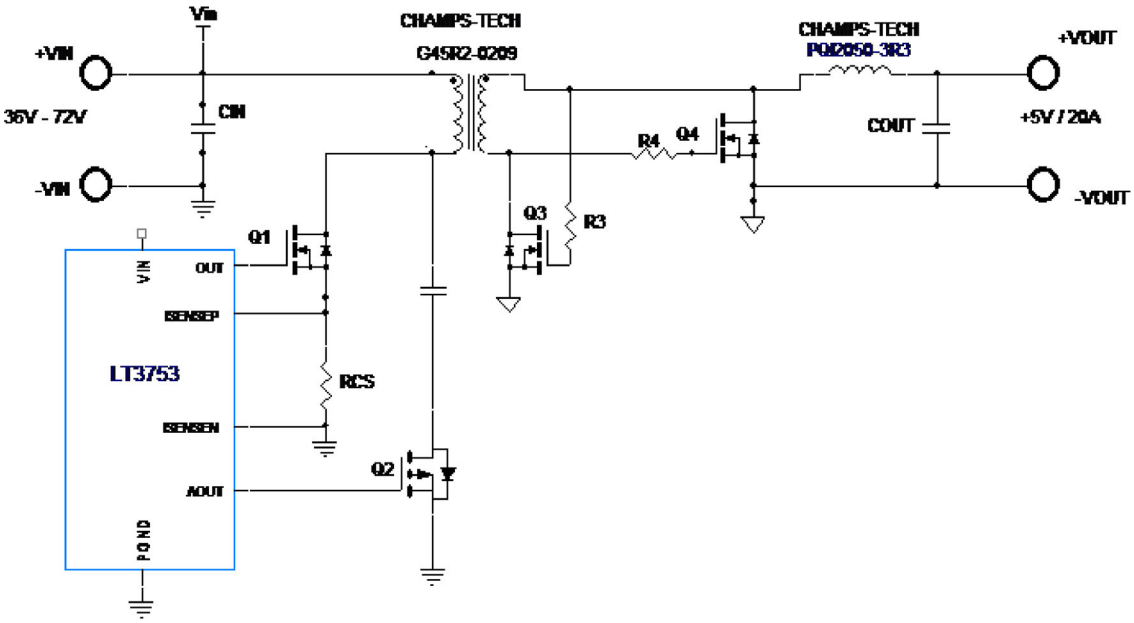
3. Input Voltage Range 9-18.

Champs PN	Vin (Min)	Vin (Max)	Vout	Iout (Adc)	Pout (Watts)	Freq (KHz)	Volt-uSec [Rated]	Output Inductor PN
20N1-0302	9	18	3.3	18.0	60	240	40	PQL2050-3R3-22-TH
20N1-0303	9	18	5.0	12.0	60	240	40	PQL2050-4R9-14-TH
20N1-0306	9	18	12.0	5.0	60	240	40	PQI2050-20HX-TH-10m
20N1-0312	9	18	24.0	2.5	60	240	40	PQI2050-100-6-LTC

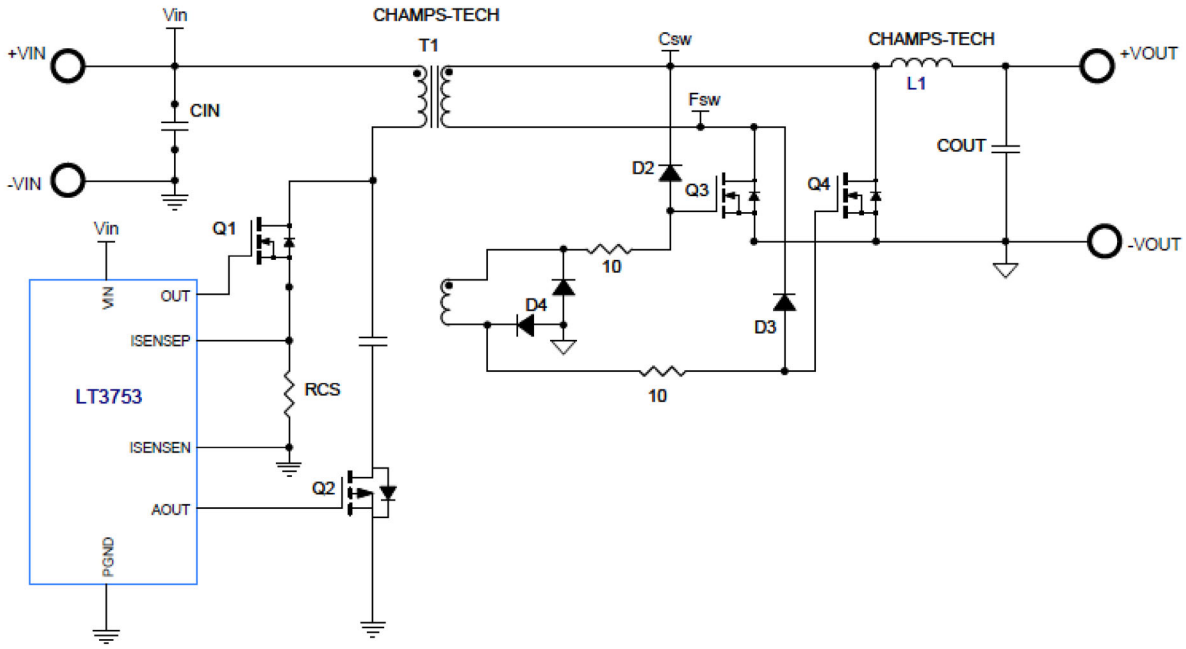
LT3753 Product Page & DC2050A Ref Design:

https://www.analog.com/en/design-center/evaluation-hardware-and-software/evaluation-boards-kits/dc2050a.html#eb-overview

https://www.analog.com/en/products/lt3753.html

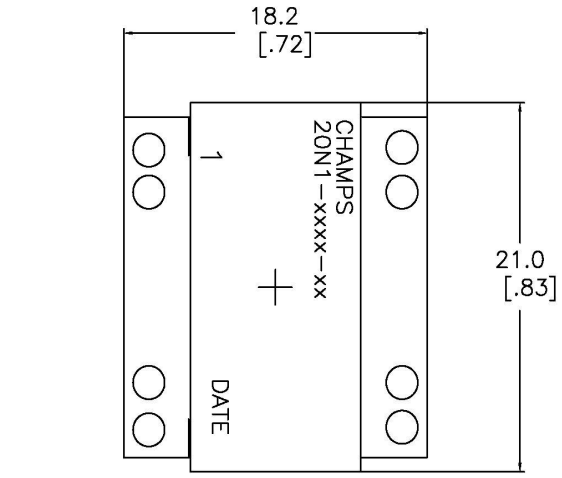


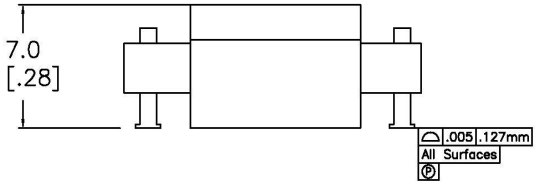
20N1 Series LT3753 Schematic -- [Optional LT8311 Secondary Side IC]



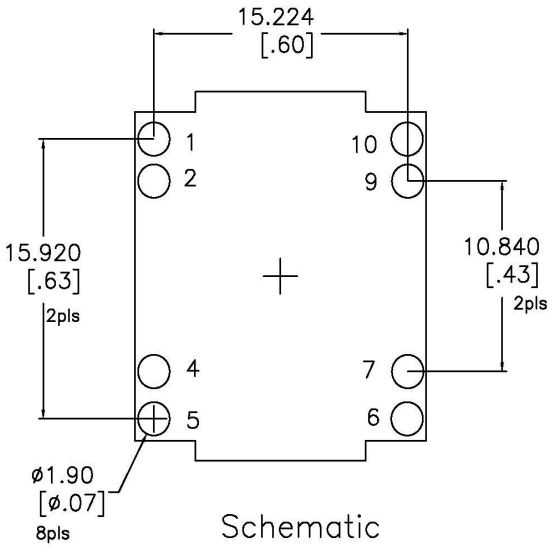
20N1 Series LT3753 SR FET Secondary Winding Schematic

MECHANICAL DIMENSIONS [TOP VIEW]

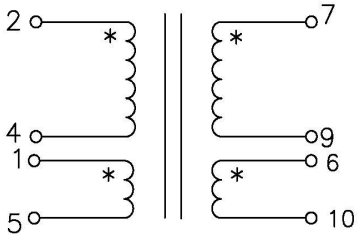




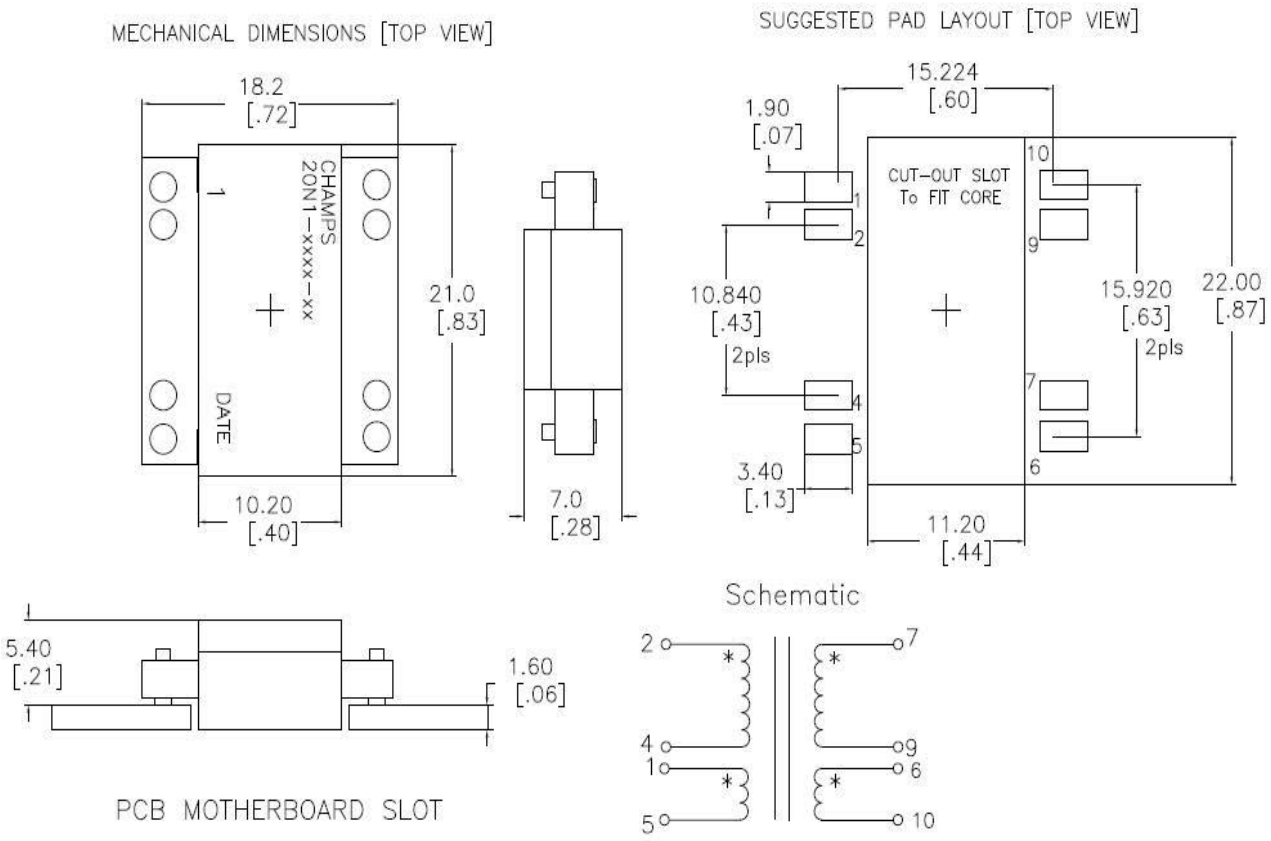
SUGGESTED PAD LAYOUT [TOP VIEW]



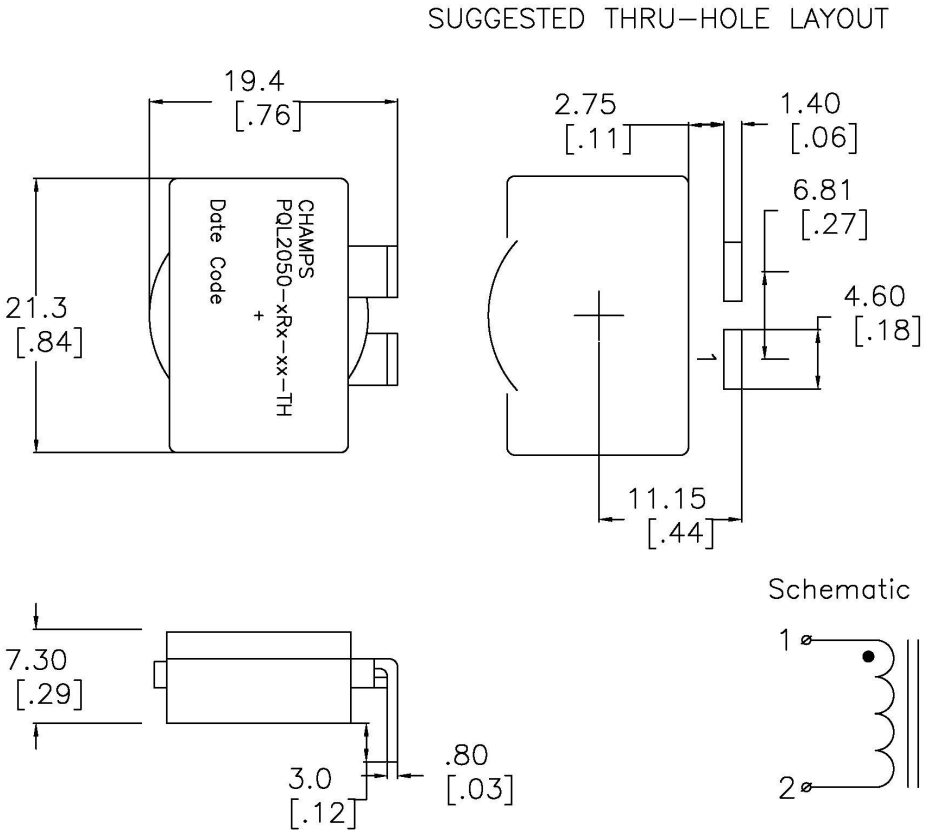
Schematic



Mechanical Design Drawing 20N1 Surface Mount

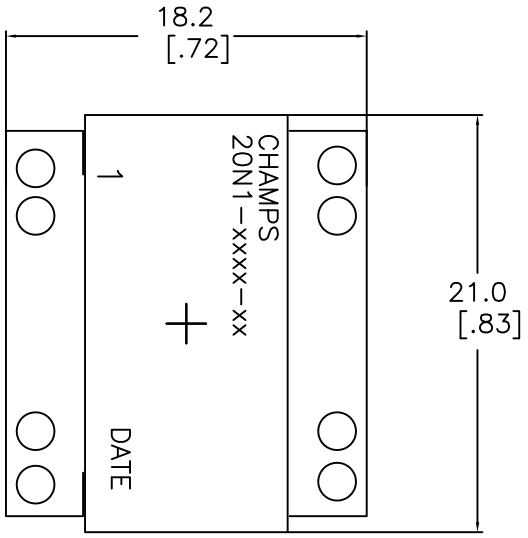


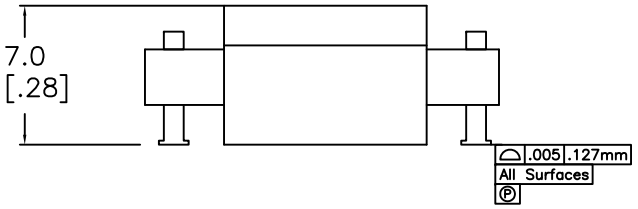
Mechanical Design Drawing 20N1 Pad-to-Pad



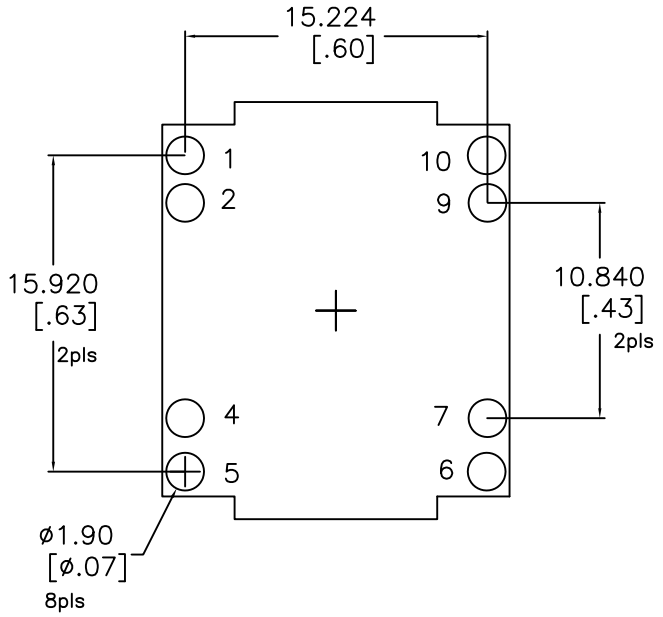
Mechanical Design Drawing PQL2050-TH Output Inductor

MECHANICAL DIMENSIONS [TOP VIEW]

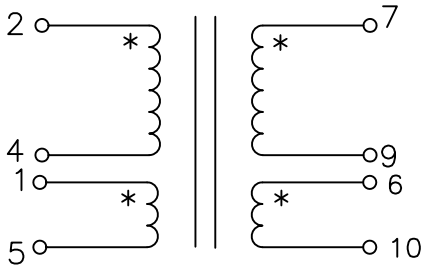




SUGGESTED PAD LAYOUT [TOP VIEW]



Schematic



NOTES:

1. TURNS RATIO [7–9] : [2–4] = 0.167 ±2%
   TURNS RATIO [1–5] : [2–4] = xx ±2% II [6–10] : [2–4] = xx ±2%
2. DCR [2–4] = 77 mohm Nom, [7–9] = 1.7 mohm Nom. [1–5] = 300 mohm Nom.
3. Inductance [2–4]= 80 uH ±10%, 100KHz, 1.0 VRMS @ 25C
4. Leakage Inductance [2–4] Short [7–9] = 200 nH Nom @100 KHz
5. Dielectric Strength [2–4], [1–5] to [7–9] & Core 1500 VDC Nom [Capable 2250Vdc]
   [7–9], [6–10] to CORE 500 VDC
6. RoHS & REACH Compliant
7. Rated Temperature Range: –55C to +130C [Inclusive of Temp Rise]

No.	DESCRIPTION REVISIONS	DATE	APPR

THIRD ANGLE PROJECTION

TOLERANCES/UNITS in MM UNLESS OTHERWISE INDICATED

.XXX ± 0.254
.XX ± 0.508
.X 0.78
ANGLE ±

CHAMPS TECHNOLOGIES

	SIGN	DATE
DRAWN	HE	10.24.19
CHKD		
APPR		

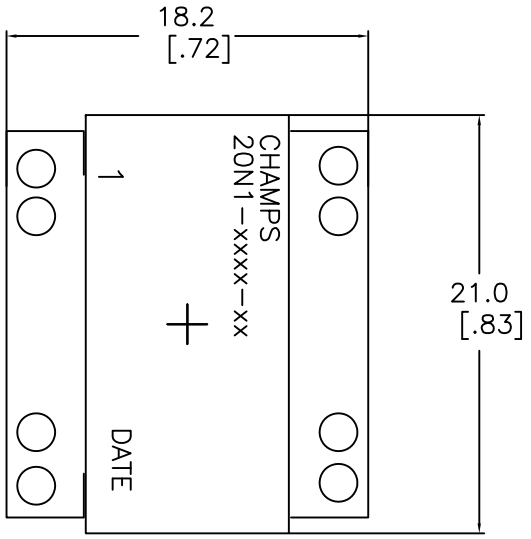
Champs-Tech PN 20N1-1202-80R

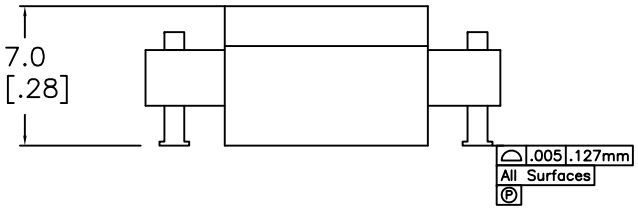
Customer Part #:

ISSUE A | REV 00

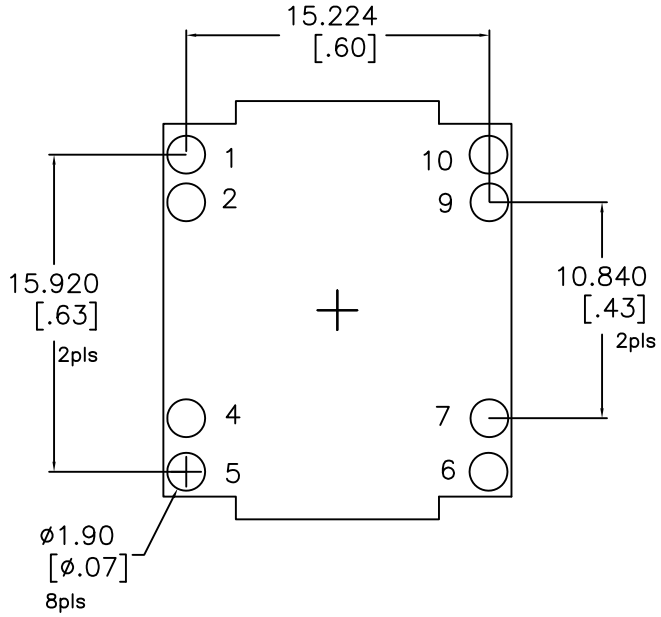
SIZE | SCALE 3:1

MECHANICAL DIMENSIONS [TOP VIEW]

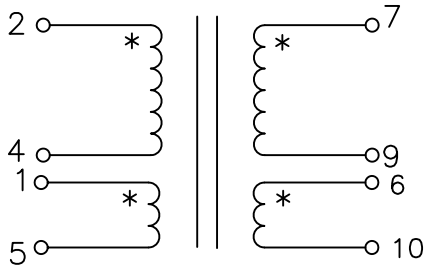




SUGGESTED PAD LAYOUT [TOP VIEW]



Schematic



NOTES:

1. TURNS RATIO [7–9] : [2–4] = 0.25 ±2%
   TURNS RATIO [1–5] : [2–4] = xx ±2% ll [6–10] : [2–4] = xx ±2%
2. DCR [2–4] = 28 mohm Nom, [7–9] = 1.7 mohm Nom. [1–5] = 300 mohm Nom.
3. Inductance [2–4]= 80 uH ±10%, 100KHz, 1.0 VRMS @ 25C
4. Leakage Inductance [2–4] Short [7–9] = 150 nH Nom @100 KHz
5. Dielectric Strength [2–4], [1–5] to [7–9] & Core 1500 VDC Nom [Capable 2250Vdc]
   [7–9], [6–10] to CORE 500 VDC
6. RoHS & REACH Compliant
7. Rated Temperature Range: –55C to +130C [Inclusive of Temp Rise]

No.	DESCRIPTION REVISIONS	DATE	APPR

THIRD ANGLE PROJECTION

CHAMPS TECHNOLOGIES

TOLERANCES/UNITS in MM UNLESS OTHERWISE INDICATED

.XXX ± 0.254
.XX ± 0.508
.X 0.78
ANGLE ±

	SIGN	DATE
DRAWN	HE	10.24.19
CHKD		
APPR		

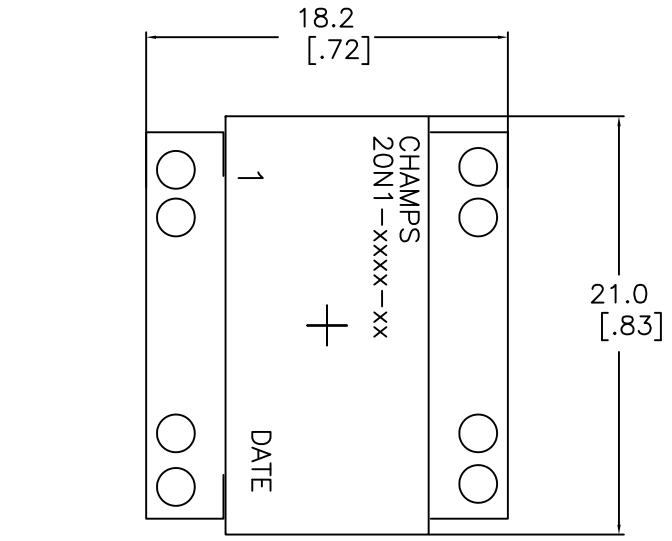
Champs-Tech PN 20N1-0802-80R

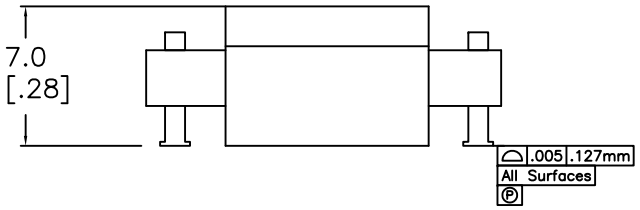
Customer Part #:

ISSUE A | REV 00

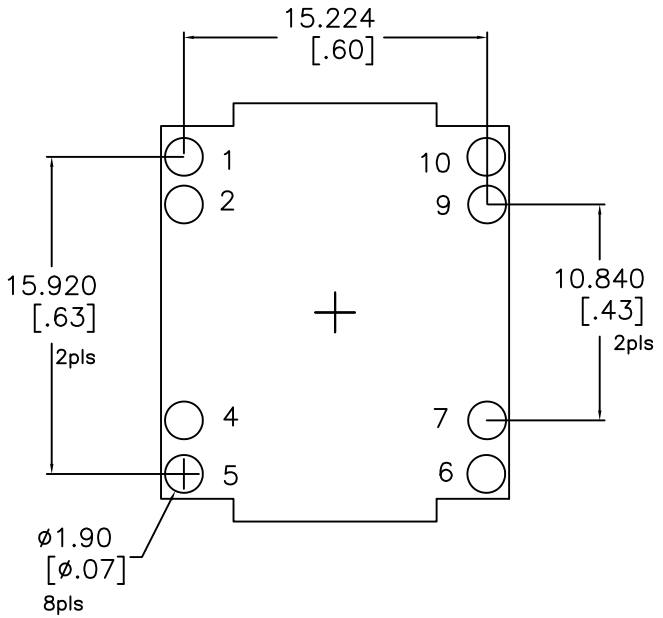
SIZE | SCALE 3:1

MECHANICAL DIMENSIONS [TOP VIEW]

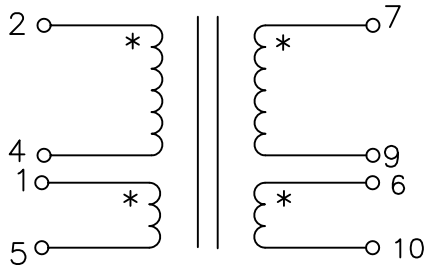




SUGGESTED PAD LAYOUT [TOP VIEW]



Schematic



NOTES:

1. TURNS RATIO [7–9] : [2–4] = 0.50 ±2%
   TURNS RATIO [1–5] : [2–4] = xx ±2% ll [6–10] : [2–4] = xx ±2%
2. DCR [2–4] = 41 mohm Nom, [7–9] = 12.0 mohm Nom. [1–5] = 300 mohm Nom.
3. Inductance [2–4]= 278 uH ±25%, 100KHz, 1.0 VRMS @ 25C
4. Leakage Inductance [2–4] Short [7–9] = 150 nH Nom @100 KHz
5. Dielectric Strength [2–4], [1–5] to [7–9] & Core 1500 VDC Nom [Capable 2250Vdc]
   [7–9], [6–10] to CORE 500 VDC
6. RoHS & REACH Compliant
7. Rated Temperature Range: –55C to +130C [Inclusive of Temp Rise]

No.	DESCRIPTION REVISIONS	DATE	APPR

THIRD ANGLE PROJECTION

TOLERANCES/UNITS in MM UNLESS OTHERWISE INDICATED

.XXX ± 0.254
.XX ± 0.508
.X 0.78
ANGLE ±

CHAMPS TECHNOLOGIES

	SIGN	DATE
DRAWN	HE	10.24.19
CHKD		
APPR		

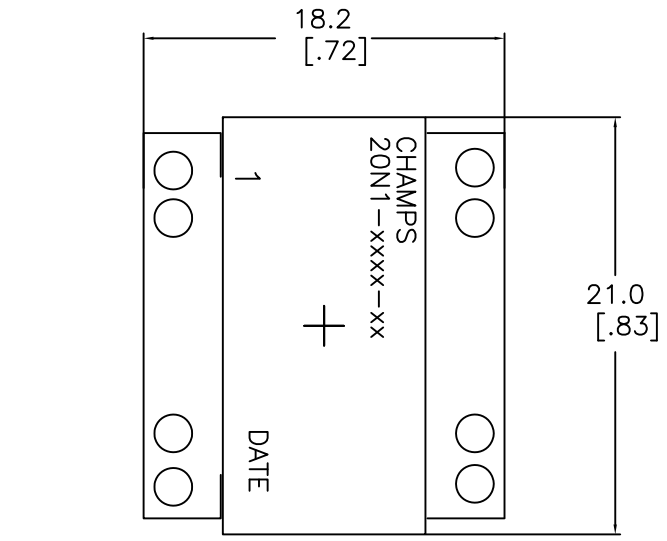
Champs-Tech PN 20N1-1005

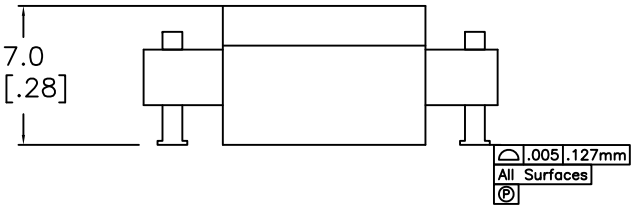
Customer Part #:

ISSUE A | REV 00

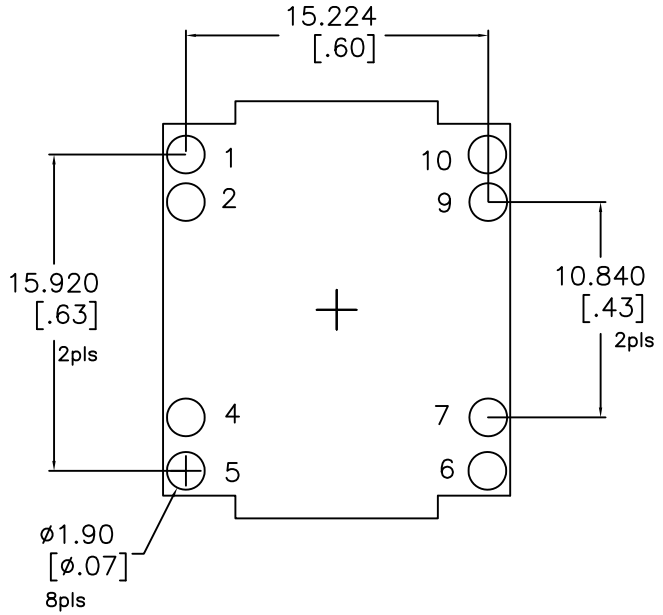
SIZE | SCALE 3:1

MECHANICAL DIMENSIONS [TOP VIEW]

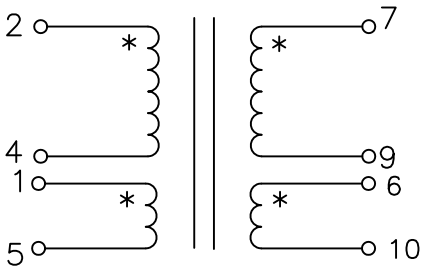




SUGGESTED PAD LAYOUT [TOP VIEW]



Schematic



NOTES:

1. TURNS RATIO [7–9] : [2–4] = 1.20 ±2%
   TURNS RATIO [1–5] : [2–4] = xx ±2% II [6–10] : [2–4] = xx ±2%
2. DCR [2–4] = 41 mohm Nom, [7–9] = 77 mohm Nom. [1–5] = 300 mohm Nom.
3. Inductance [2–4]= 278 uH ±25%, 100KHz, 1.0 VRMS @ 25C
4. Leakage Inductance [2–4] Short [7–9] = 180 nH Nom @100 KHz
5. Dielectric Strength [2–4], [1–5] to [7–9] & Core 1500 VDC Nom [Capable 2250Vdc]
   [7–9], [6–10] to CORE 500 VDC
6. RoHS & REACH Compliant
7. Rated Temperature Range: –55C to +130C [Inclusive of Temp Rise]

No.	DESCRIPTION REVISIONS	DATE	APPR

THIRD ANGLE PROJECTION

TOLERANCES/UNITS in MM UNLESS OTHERWISE INDICATED

.XXX ± 0.254
.XX ± 0.508
.X 0.78
ANGLE ±

CHAMPS TECHNOLOGIES

	SIGN	DATE
DRAWN	HE	10.24.19
CHKD		
APPR		

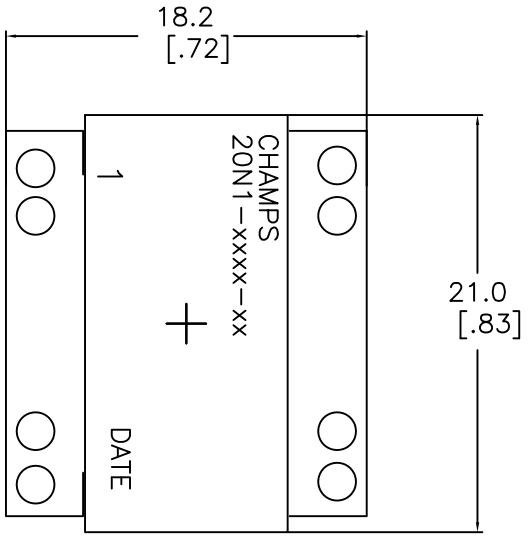
Champs-Tech PN 20N1-1012

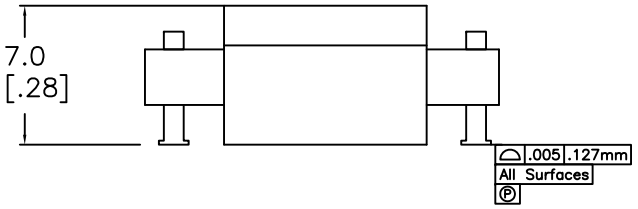
Customer Part #:

ISSUE A | REV 00

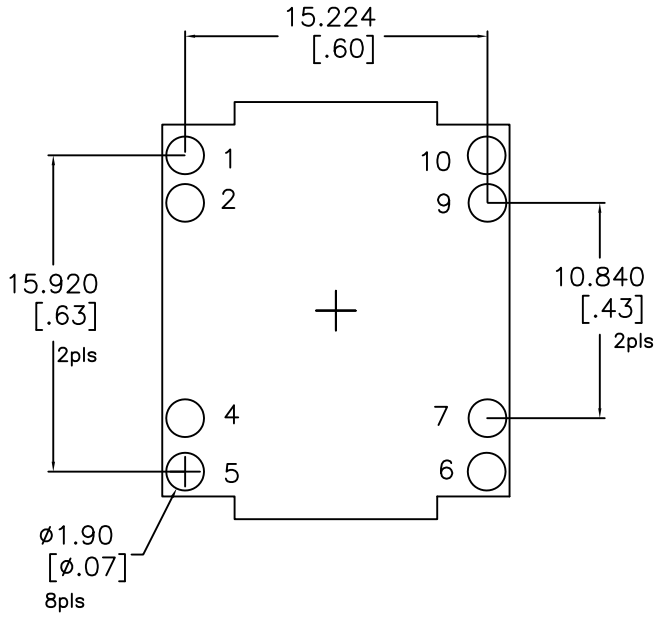
SIZE | SCALE 3:1

MECHANICAL DIMENSIONS [TOP VIEW]

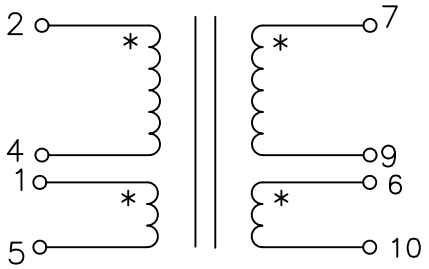




SUGGESTED PAD LAYOUT [TOP VIEW]



Schematic



NOTES:

1. TURNS RATIO [7–9] : [2–4] = 0.286 ±2%
   TURNS RATIO [1–5] : [2–4] = xx ±2% II [6–10] : [2–4] = xx ±2%
2. DCR [2–4] = 22 mohm Nom, [7–9] = 1.7 mohm Nom. [1–5] = 300 mohm Nom.
3. Inductance [2–4]= 40 uH ±10%, 100KHz, 1.0 VRMS @ 25C
4. Leakage Inductance [2–4] Short [7–9] = 120 nH Nom @100 KHz
5. Dielectric Strength [2–4], [1–5] to [7–9] & Core 1500 VDC Nom [Capable 2250Vdc]
   [7–9], [6–10] to CORE 500 VDC
6. RoHS & REACH Compliant
7. Rated Temperature Range: –55C to +130C [Inclusive of Temp Rise]

No.	DESCRIPTION REVISIONS	DATE	APPR

THIRD ANGLE PROJECTION

TOLERANCES/UNITS in MM UNLESS OTHERWISE INDICATED

.XXX ± 0.254
.XX ± 0.508
.X 0.78
ANGLE ±

CHAMPS TECHNOLOGIES

	SIGN	DATE
DRAWN	HE	10.24.19
CHKD		
APPR		

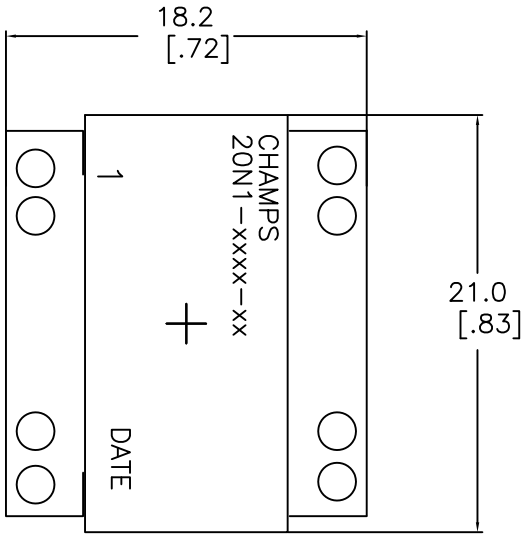
Champs-Tech PN 20N1-0702-40R

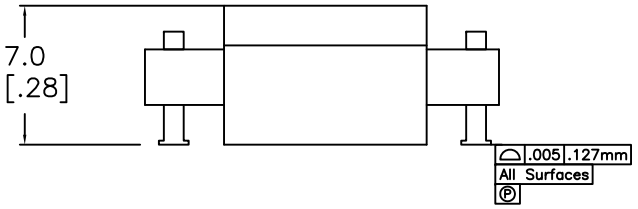
Customer Part #:

ISSUE A | REV 00

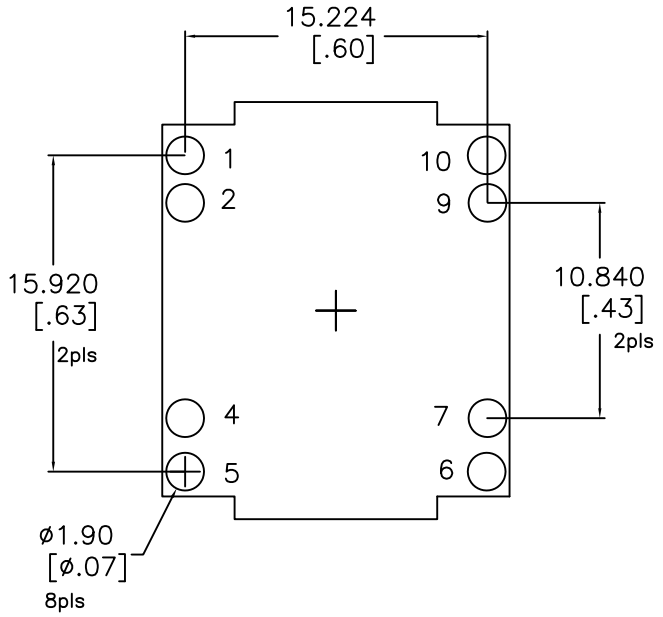
SIZE | SCALE 3:1

MECHANICAL DIMENSIONS [TOP VIEW]

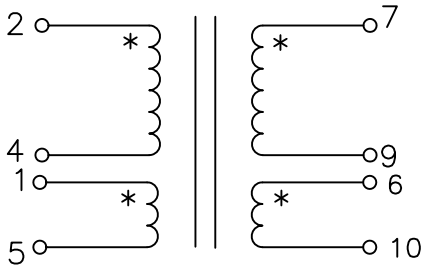




SUGGESTED PAD LAYOUT [TOP VIEW]



Schematic



NOTES:

1. TURNS RATIO [7–9] : [2–4] = 0.50 ±2%
   TURNS RATIO [1–5] : [2–4] = xx ±2% II [6–10] : [2–4] = xx ±2%
2. DCR [2–4] = 17.5 mohm Nom, [7–9] = 3.5 mohm Nom. [1–5] = 300 mohm Nom.
3. Inductance [2–4]= 40 uH ±10%, 100KHz, 1.0 VRMS @ 25C
4. Leakage Inductance [2–4] Short [7–9] = 100 nH Nom @100 KHz
5. Dielectric Strength [2–4], [1–5] to [7–9] & Core 1500 VDC Nom [Capable 2250Vdc]
   [7–9], [6–10] to CORE 500 VDC
6. RoHS & REACH Compliant
7. Rated Temperature Range: –55C to +130C [Inclusive of Temp Rise]

No.	DESCRIPTION REVISIONS	DATE	APPR

THIRD ANGLE PROJECTION

TOLERANCES/UNITS in MM UNLESS OTHERWISE INDICATED

.XXX ± 0.254
.XX ± 0.508
.X 0.78
ANGLE ±

CHAMPS TECHNOLOGIES

	SIGN	DATE
DRAWN	HE	10.24.19
CHKD		
APPR		

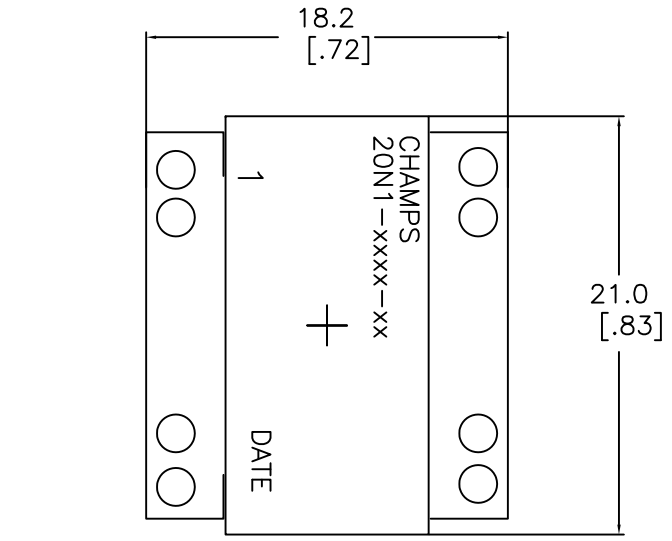
Champs-Tech PN 20N1-0603-40R

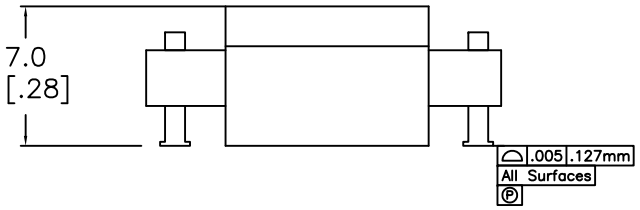
Customer Part #:

ISSUE A | REV 00

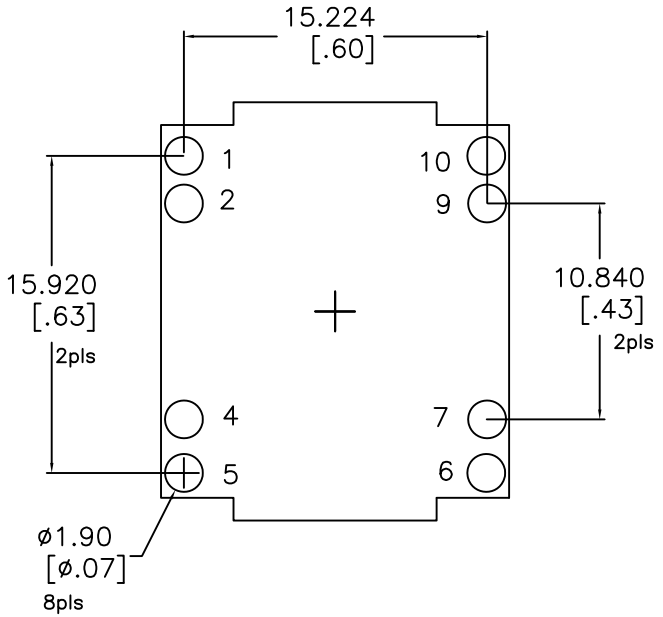
SIZE | SCALE 3:1

MECHANICAL DIMENSIONS [TOP VIEW]

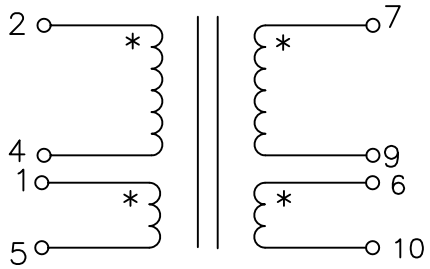




SUGGESTED PAD LAYOUT [TOP VIEW]



Schematic



NOTES:

1. TURNS RATIO [7–9] : [2–4] = 1.0 ±2%
   TURNS RATIO [1–5] : [2–4] = xx ±2% ll [6–10] : [2–4] = xx ±2%
2. DCR [2–4] = 17.5 mohm Nom, [7–9] = 17.5 mohm Nom. [1–5] = 300 mohm Nom.
3. Inductance [2–4]= 40 uH ±10%, 100KHz, 1.0 VRMS @ 25C
4. Leakage Inductance [2–4] Short [7–9] = 120 nH Nom @100 KHz
5. Dielectric Strength [2–4], [1–5] to [7–9] & Core 1500 VDC Nom [Capable 2250Vdc]
   [7–9], [6–10] to CORE 500 VDC
6. RoHS & REACH Compliant
7. Rated Temperature Range: –55C to +130C [Inclusive of Temp Rise]

No.	DESCRIPTION REVISIONS	DATE	APPR

THIRD ANGLE PROJECTION

TOLERANCES/UNITS in MM UNLESS OTHERWISE INDICATED

.XXX ± 0.254
.XX ± 0.508
.X 0.78
ANGLE ±

CHAMPS TECHNOLOGIES

	SIGN	DATE
DRAWN	HE	10.24.19
CHKD		
APPR		

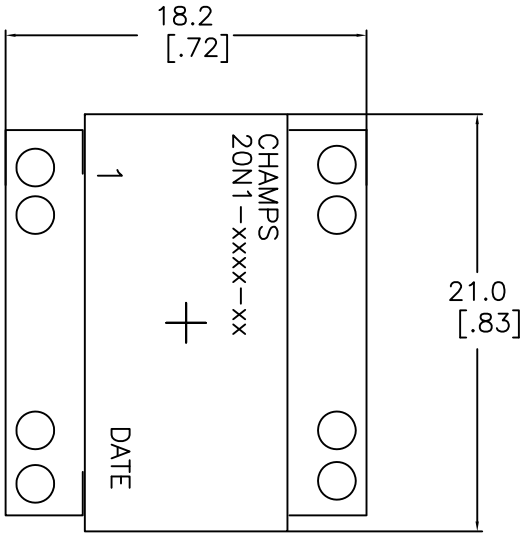
Champs-Tech PN 20N1-0606-40R

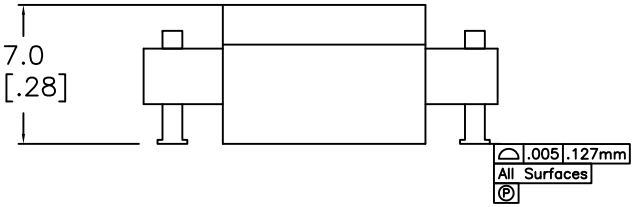
Customer Part #:

ISSUE A | REV 00

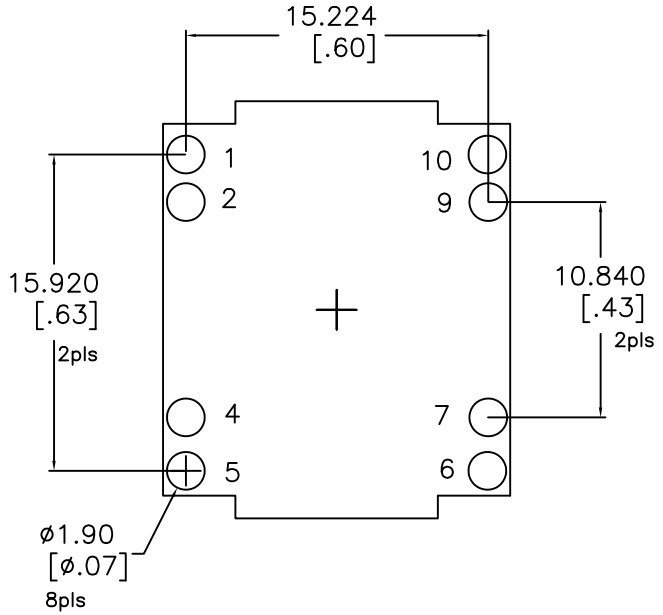
SIZE | SCALE 3:1

MECHANICAL DIMENSIONS [TOP VIEW]

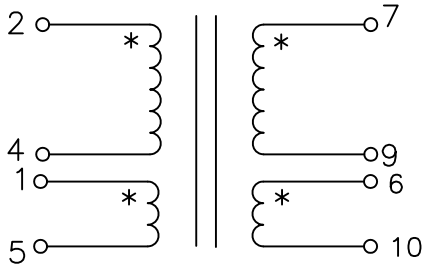




SUGGESTED PAD LAYOUT [TOP VIEW]



Schematic



NOTES:

1. TURNS RATIO [7–9] : [2–4] = 1:2 ±2%
   TURNS RATIO [1–5] : [2–4] = xx ±2% II [6–10] : [2–4] = xx ±2%
2. DCR [2–4] = 17.5 mohm Nom, [7–9] = 77 mohm Nom. [1–5] = 300 mohm Nom.
3. Inductance [2–4]= 40 uH ±10%, 100KHz, 1.0 VRMS @ 25C
4. Leakage Inductance [2–4] Short [7–9] = 150 nH Nom @100 KHz
5. Dielectric Strength [2–4], [1–5] to [7–9] & Core 1500 VDC Nom [Capable 2250Vdc]
   [7–9], [6–10] to CORE 500 VDC
6. RoHS & REACH Compliant
7. Rated Temperature Range: –55C to +130C [Inclusive of Temp Rise]

No.	DESCRIPTION REVISIONS	DATE	APPR

THIRD ANGLE PROJECTION

TOLERANCES/UNITS in MM UNLESS OTHERWISE INDICATED

.XXX ± 0.254
.XX ± 0.508
.X 0.78
ANGLE ±

CHAMPS TECHNOLOGIES

	SIGN	DATE
DRAWN	HE	10.24.19
CHKD		
APPR		

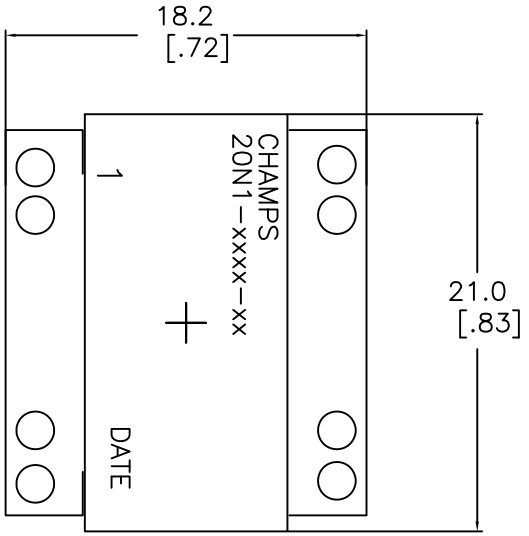
Champs-Tech PN 20N1-0612-40R

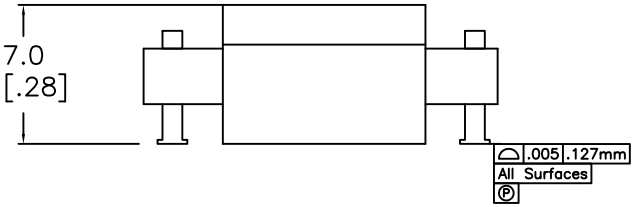
Customer Part #:

ISSUE A | REV 00

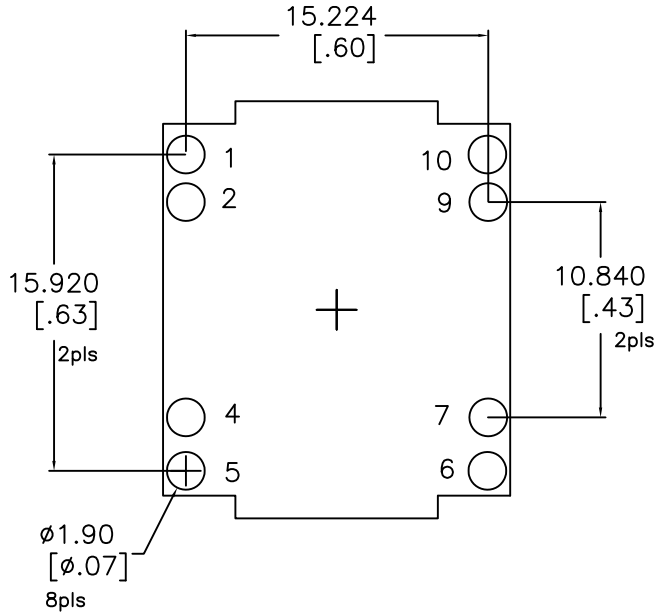
SIZE | SCALE 3:1

MECHANICAL DIMENSIONS [TOP VIEW]

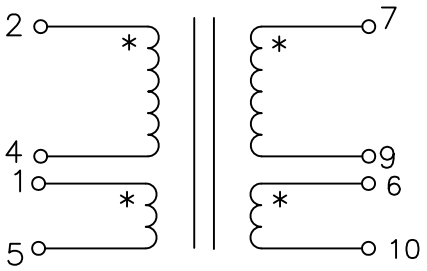




SUGGESTED PAD LAYOUT [TOP VIEW]



Schematic



NOTES:

1. TURNS RATIO [7–9] : [2–4] = 0.667 ±2%
   TURNS RATIO [1–5] : [2–4] = xx ±2% II [6–10] : [2–4] = xx ±2%
2. DCR [2–4] = 3.5 mohm Nom, [7–9] = 1.7 mohm Nom. [1–5] = 300 mohm Nom.
3. Inductance [2–4]= 25 uH ±25%, 100KHz, 1.0 VRMS @ 25C
4. Leakage Inductance [2–4] Short [7–9] = 35 nH Nom @100 KHz
5. Dielectric Strength [2–4], [1–5] to [7–9] & Core 1500 VDC Nom [Capable 2250Vdc]
   [7–9], [6–10] to CORE 500 VDC
6. RoHS & REACH Compliant
7. Rated Temperature Range: –55C to +130C [Inclusive of Temp Rise]

No.	DESCRIPTION REVISIONS	DATE	APPR

THIRD ANGLE PROJECTION

TOLERANCES/UNITS in MM UNLESS OTHERWISE INDICATED

.XXX ± 0.254
.XX ± 0.508
.X 0.78
ANGLE ±

CHAMPS TECHNOLOGIES

	SIGN	DATE
DRAWN	HE	10.24.19
CHKD		
APPR		

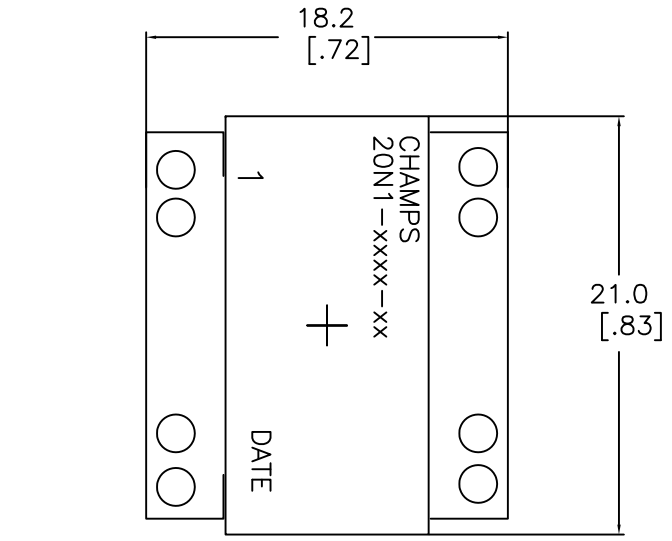
Champs-Tech PN 20N1-0302

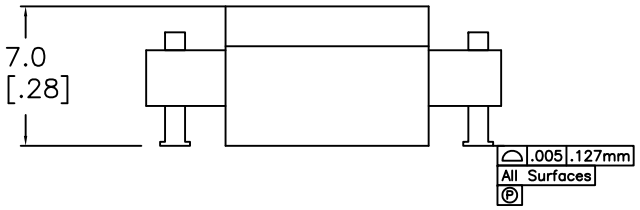
Customer Part #:

ISSUE A | REV 00

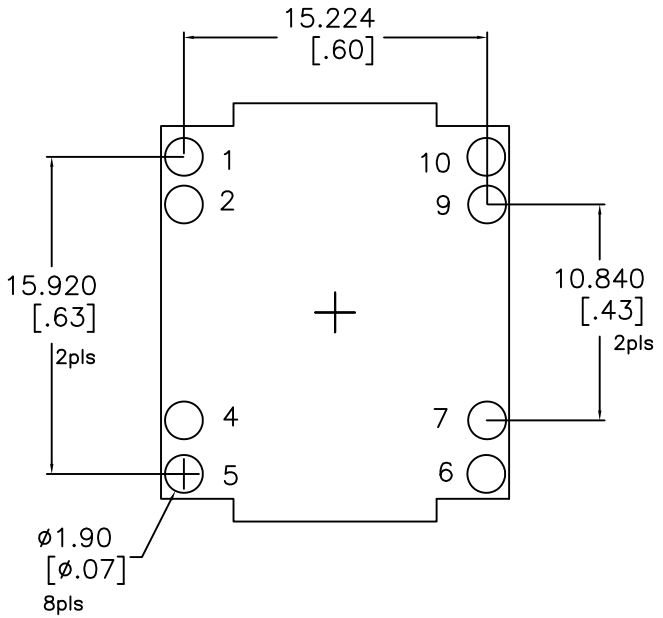
SIZE | SCALE 3:1

MECHANICAL DIMENSIONS [TOP VIEW]

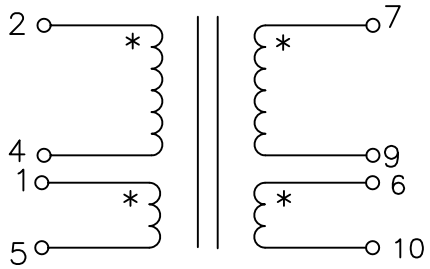




SUGGESTED PAD LAYOUT [TOP VIEW]



Schematic



NOTES:

1. TURNS RATIO [7–9] : [2–4] = 1.0 ±2%
   TURNS RATIO [1–5] : [2–4] = xx ±2% ll [6–10] : [2–4] = xx ±2%
2. DCR [2–4] = 3.5 mohm Nom, [7–9] = 3.5 mohm Nom. [1–5] = 300 mohm Nom.
3. Inductance [2–4]= 25 uH ±25%, 100KHz, 1.0 VRMS @ 25C
4. Leakage Inductance [2–4] Short [7–9] = 35 nH Nom @100 KHz
5. Dielectric Strength [2–4], [1–5] to [7–9] & Core 1500 VDC Nom [Capable 2250Vdc]
   [7–9], [6–10] to CORE 500 VDC
6. RoHS & REACH Compliant
7. Rated Temperature Range: –55C to +130C [Inclusive of Temp Rise]

No.	DESCRIPTION REVISIONS	DATE	APPR

THIRD ANGLE PROJECTION

TOLERANCES/UNITS in MM UNLESS OTHERWISE INDICATED

.XXX ± 0.254
.XX ± 0.508
.X 0.78
ANGLE ±

CHAMPS TECHNOLOGIES

	SIGN	DATE
DRAWN	HE	10.24.19
CHKD		
APPR		

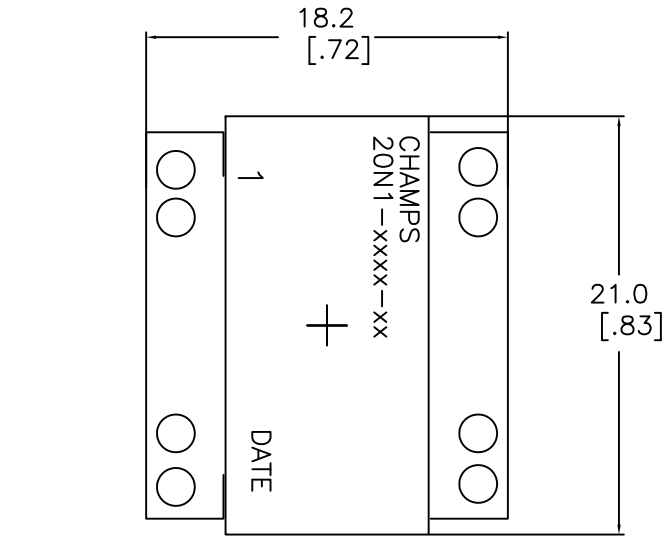
Champs-Tech PN 20N1-0303

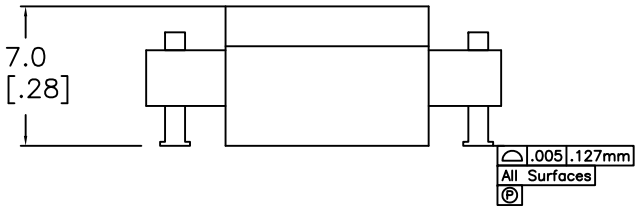
Customer Part #:

ISSUE A | REV 00

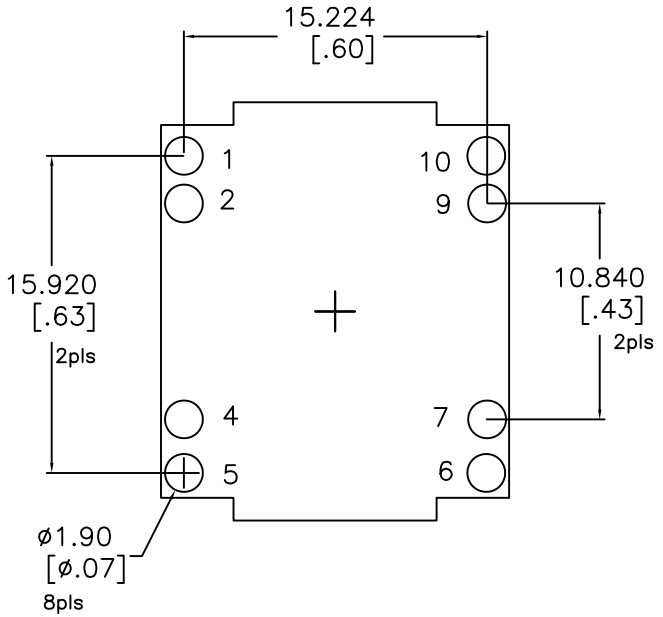
SIZE | SCALE 3:1

MECHANICAL DIMENSIONS [TOP VIEW]

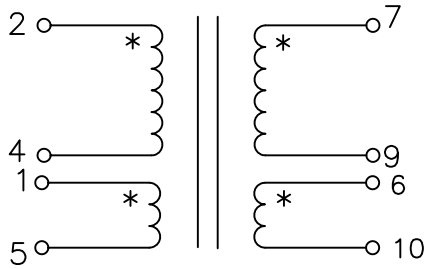




SUGGESTED PAD LAYOUT [TOP VIEW]



Schematic



NOTES:

1. TURNS RATIO [7–9] : [2–4] = 2:1 ±2%
   TURNS RATIO [1–5] : [2–4] = xx ±2% ll [6–10] : [2–4] = xx ±2%
2. DCR [2–4] = 3.5 mohm Nom, [7–9] = 17.5 mohm Nom. [1–5] = 300 mohm Nom.
3. Inductance [2–4]= 25 uH ±10%, 100KHz, 1.0 VRMS @ 25C
4. Leakage Inductance [2–4] Short [7–9] = 40 nH Nom @100 KHz
5. Dielectric Strength [2–4], [1–5] to [7–9] & Core 1500 VDC Nom [Capable 2250Vdc]
   [7–9], [6–10] to CORE 500 VDC
6. RoHS & REACH Compliant
7. Rated Temperature Range: −55C to +130C [Inclusive of Temp Rise]

No.	DESCRIPTION REVISIONS	DATE	APPR

THIRD ANGLE PROJECTION

TOLERANCES/UNITS in MM UNLESS OTHERWISE INDICATED

.XXX ± 0.254
.XX ± 0.508
.X 0.78
ANGLE ±

CHAMPS TECHNOLOGIES

	SIGN	DATE
DRAWN	HE	10.24.19
CHKD		
APPR		

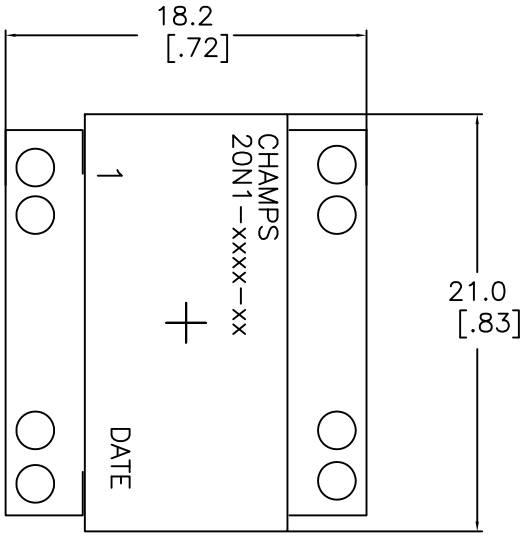
Champs-Tech PN 20N1-0306

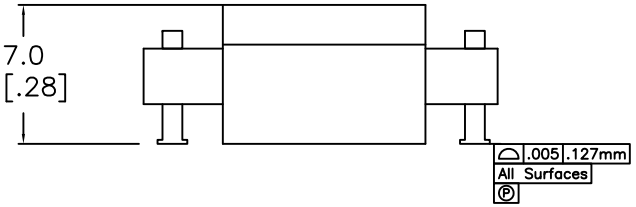
Customer Part #:

ISSUE A | REV 00

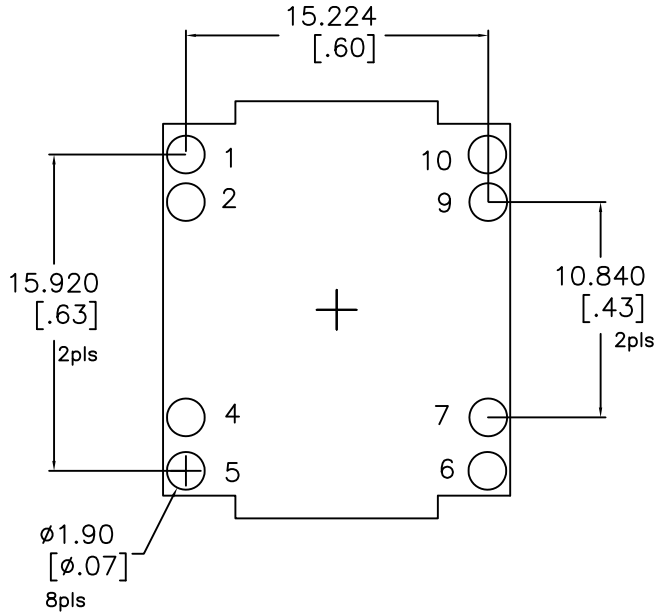
SIZE | SCALE 3:1

MECHANICAL DIMENSIONS [TOP VIEW]

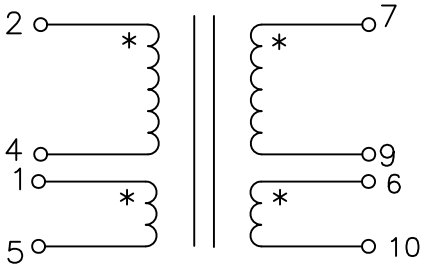




SUGGESTED PAD LAYOUT [TOP VIEW]



Schematic



NOTES:

1. TURNS RATIO [7–9] : [2–4] = 4:1 ±2%
   TURNS RATIO [1–5] : [2–4] = xx ±2% II [6–10] : [2–4] = xx ±2%
2. DCR [2–4] = 3.5 mohm Nom, [7–9] = 77 mohm Nom. [1–5] = 300 mohm Nom.
3. Inductance [2–4]= 25 uH ±10%, 100KHz, 1.0 VRMS @ 25C
4. Leakage Inductance [2–4] Short [7–9] = 50 nH Nom @100 KHz
5. Dielectric Strength [2–4], [1–5] to [7–9] & Core 1500 VDC Nom [Capable 2250Vdc]
   [7–9], [6–10] to CORE 500 VDC
6. RoHS & REACH Compliant
7. Rated Temperature Range: –55C to +130C [Inclusive of Temp Rise]

No.	DESCRIPTION REVISIONS	DATE	APPR

THIRD ANGLE PROJECTION

TOLERANCES/UNITS in MM UNLESS OTHERWISE INDICATED

.XXX ± 0.254
.XX ± 0.508
.X 0.78
ANGLE ±

CHAMPS TECHNOLOGIES

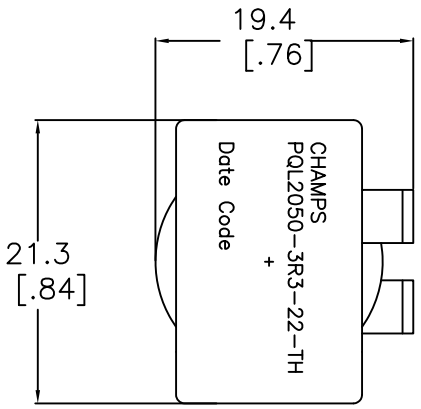
	SIGN	DATE
DRAWN	HE	10.24.19
CHKD		
APPR		

Champs-Tech PN 20N1-0312

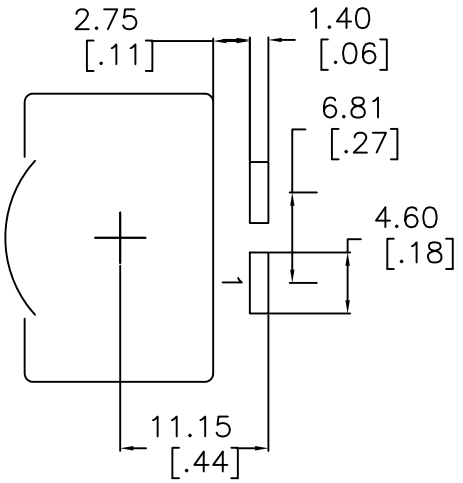
Customer Part #:

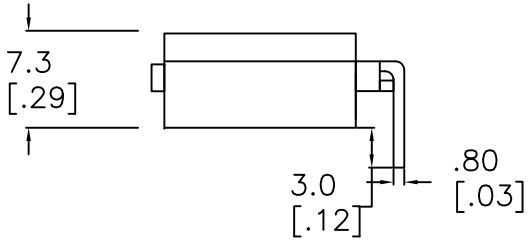
ISSUE A | REV 00

SIZE | SCALE 3:1

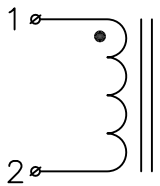


SUGGESTED THRU-HOLE LAYOUT





Schematic



NOTES:
1. INDUCTANCE [1-2] = 3.3 uH ±10% @100kHz 1.0V @ 0Adc
2. INDUCTANCE [1-2] = Within Range ±10% Measured Value at 0Adc @Irated 22Adc
3. DCR [1-2] = 2.2 mohms Nom.
4. DIELECTRIC ISOLATION > 500 VDC [1-2] : CORE
5. SATURATION CURRENT @25C = 26Adc | @100C = 24Adc
6. HEATING CURRENT FOR 45C RISE AT 25C AMBIENT = 32 Adc
7. Operating Ambient Temperature: -55C to +130C
8. RoHS Level 6/6, REACH & CMRT Compliant || 96/4 Sn/Ag Pin Composition

No.	DESCRIPTION REVISIONS	DATE	APPR

THIRD ANGLE PROJECTION

CHAMPS TECHNOLOGIES

TOLERANCES/UNITS in MM UNLESS OTHERWISE INDICATED
.XXX ± 0.254
.XX ± 0.38
.X ± 0.78
ANGLE ±

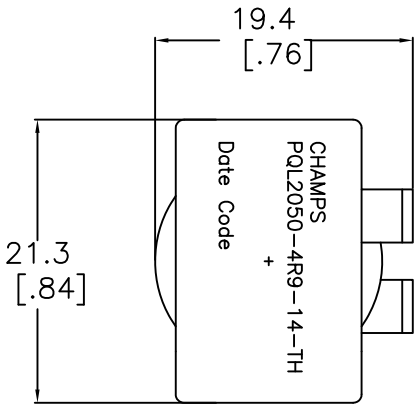
	SIGN	DATE
DRAWN	HE	01.15.18
CHKD		
APPR		

Champs-Tech PN PQL2050-3R3-22-TH

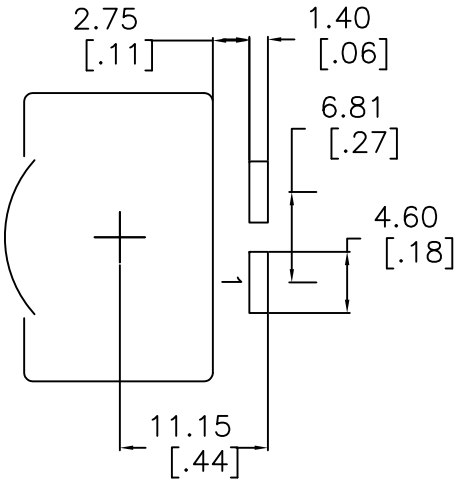
Customer Part #:

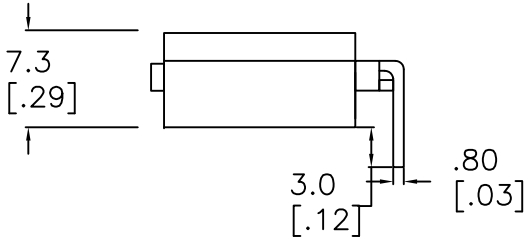
ISSUE A | REV 00

SIZE | SCALE 2:1

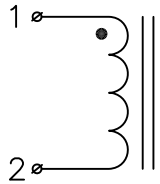


SUGGESTED THRU-HOLE LAYOUT





Schematic



NOTES:

1. INDUCTANCE [1-2] = 4.9 uH ±10% @100kHz 1.0V @ 0Adc
2. INDUCTANCE [1-2] = Within Range ±10% Measured Value at 0Adc @Irated 14Adc
3. DCR [1-2] = 2.2 mohms Nom.
4. DIELECTRIC ISOLATION > 500 VDC [1-2] : CORE
5. SATURATION CURRENT @25C = 16Adc | @100C = 15Adc
6. HEATING CURRENT FOR 45C RISE AT 25C AMBIENT = 32 Adc
7. Operating Ambient Temperature: -55C to +130C
8. RoHS Level 6/6, REACH & CMRT Compliant || 96/4 Sn/Ag Pin Composition

No.	DESCRIPTION REVISIONS	DATE	APPR

THIRD ANGLE PROJECTION

CHAMPS TECHNOLOGIES

TOLERANCES/UNITS in MM
UNLESS OTHERWISE INDICATED
.XXX ± 0.254
.XX ± 0.38
.X ± 0.78
ANGLE ±

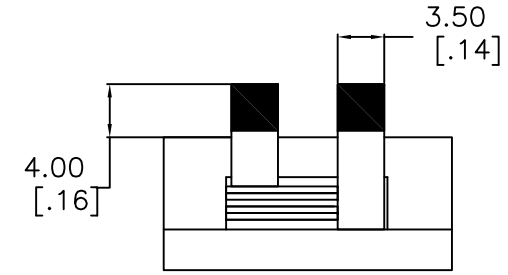
	SIGN	DATE
DRAWN	HE	01.15.18
CHKD		
APPR		

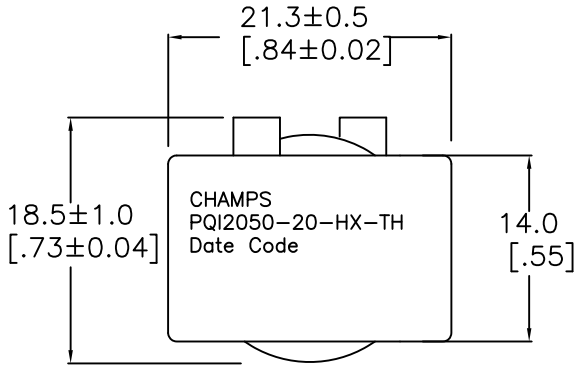
Champs-Tech PN PQL2050-4R9-14-TH

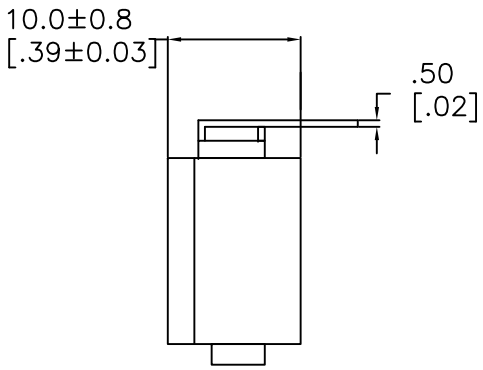
Customer Part #:

ISSUE A | REV 00

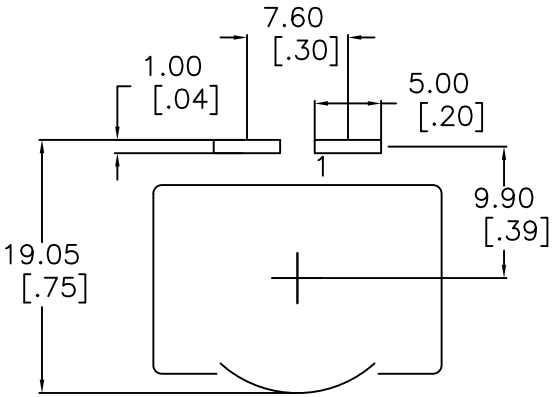
SIZE | SCALE 2:1



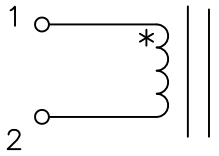




SUGGESTED THRU-HOLE LAYOUT



Schematic



ELECTRICAL INFO:

INDUCTANCE [1-2] = 20uH Nom, 18 Min. @100kHz/1.0V 6Adc

INDUCTANCE [1-2] = 17 uH Min. @100kHz/1.0V 6Adc

DCR [1-2] = 3.6 mohms Nom || 4.5Max

DIELECTRIC ISOLATION > 500 VDC [1-2] : CORE

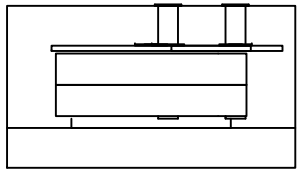
SATURATION CURRENT @25C = 7Adc | @100C = 6.4Adc

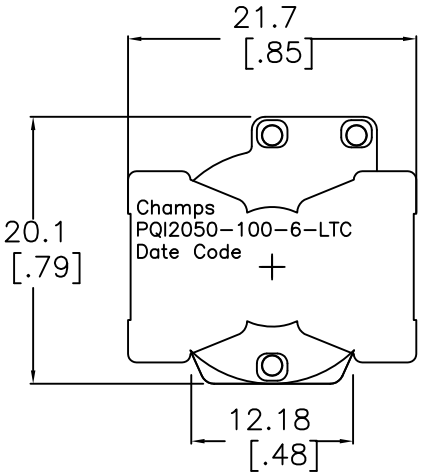
HEATING CURRENT FOR 40C RISE AT 25C AMBIENT = 22 Adc

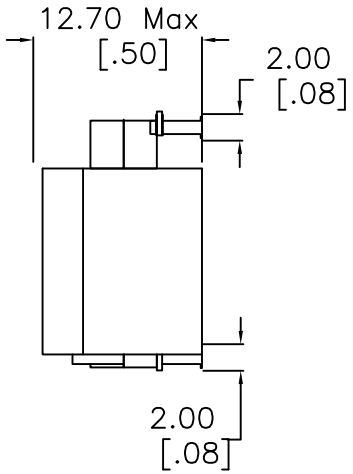
Operating Temp Range -55C to +130C [Inclusive of Temp Rise]

No.	DESCRIPTION REVISIONS	DATE	APPR
THIRD ANGLE PROJECTION	CHAMPS TECHNOLOGIES		

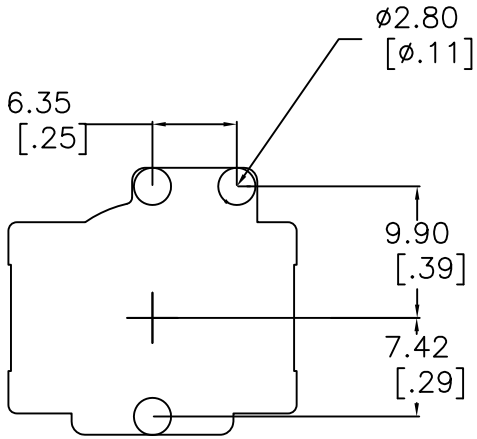
TOLERANCES/UNITS in MM UNLESS OTHERWISE INDICATED		SIGN	DATE	Champs-Tech PN PQI2050-20-HX-TH-10MM		
.XXX ± .25 .XX ± .51 .X ± 1.0 ANGLE ±	DRAWN	DK	11.19.18	Customer Part #: INDUCTOR	ISSUE A	REV 00
	CHKD					
	APPR	HE		SIZE	SCALE 2:1	

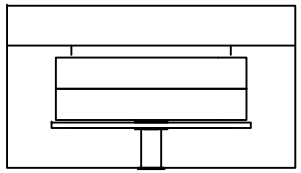




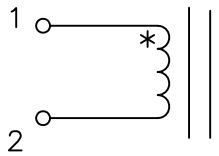


SUGGESTED
PAD
LAYOUT





Schematic



INDUCTANCE [1-2] = 100.0uH Nom, 90 Min. @10kHz/0.1V 6.0 Adc
INDUCTANCE [1-2] = 85 uH Min @10kHz/0.1V 6.8 Adc
DCR [1-2] = 76 mohms Nom, 86 Max
DIELECTRIC ISOLATION > 500 VDC [1-2] : CORE
SATURATION CURRENT @25C = 6.8 Adc | @85C = 6.0 Adc
HEATING CURRENT FOR 40C RISE AT 25C AMBIENT = 5.5Adc
RoHS Level 6/6 and REACH Compliant
OPERATING TEMP RANGE -55C to +130C [Inclusive of Temp Rise]

No.	DESCRIPTION REVISIONS	DATE	APPR

THIRD ANGLE PROJECTION

CHAMPS TECHNOLOGIES

TOLERANCES/UNITS in MM UNLESS OTHERWISE INDICATED
.XXX ± 0.254
.XX ± 0.38
.X ± 1.5
ANGLE ±

	SIGN	DATE
DRAWN	DK	8/20/08
CHKD		
APPR	HE	8/27/13

Champs-Tech PN PQI2050-100-6-LTC
Customer Part #: INDUCTOR
ISSUE A
REV 00
SIZE
SCALE 2:1