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## **SCHEMATIC** PINS RJ45 TD+ P1 J1 TX+ TCT P2 TD- P3 J2 TX-RD+ P4 J3 RX+ RCT P5 RD-P6 J6 RX-J4 J5 J7 J8

**RoHS** 

## ELECTRICAL CHARACTERISTICS @ 25°C

1.0 TURNS RATIO: (P4-P5-P6): (J3-J6) : 1CT: 1CT ± 3% (P3-P2-P1): (J2-J1) : 1CT: 1CT ± 3%

2.0 INDUCTANCE: (P4-P6) : 350uH MIN. @ 0.1V, 100KHz, 8mA DC Bias : 350uH MIN. @ 0.1V, 100KHz, 8mA DC Bias

3.0 LEAKAGE INDUCTANCE: P6-P4 (WITH J6 AND J3 SHORT) : 0.3uH MAX. @ 1MHz P3-P1 (WITH J2 AND J1 SHORT) : 0.3uH MAX. @ 1MHz

4.0 INTERWINDING CAPACITANCE: (P6,P5,P4) TO (J6,J3) : 30pF MAX @ 1MHz (P3,P2,P1) TO (J2,J1) : 30pF MAX. @ 1MHZ

5.0 DC RESISTANCE: (J6-J3)=(J2-J1) : 1.35 ohms Max.

6.0 RETURN LOSS: (P4-P6)=100 OHMS AND (P1-P3)=100 OHM REF.

 1MHz TO 30MHz
 : 18dB MIN.

 60MHz TO 80MHz
 : 12dB MIN.

NOTE: 100 OHMS CONNECTED TO (J2-J1) OR (J3-J6).

7.0 DIELECTRIC WITHSTAND: (J1, J2) TO (P1, P3) : 1500 Vrms (J3, J6) TO (P4, P6) : 1500 Vrms

8.0 INSERTION LOSS: RS=RL=100 ohms

100KHz TO 100MHz : 1.1 dB TYP

9.0 RISE TIME: RS=100 OHMS AND RL = 100 OHMS

OUTPUT VOLTAGE = 1 V peak : 3.0 nS MAX PULSE WIDTH= 112nS : 3.0 nS MAX

10.0 CROSS TALK: 1-100 MHz : 40 dB TYP

11.0 COMMON TO COMMON MODE ATTENUATION: 30MHz TO 100MHz : 35dB TYP

NOTES: 1.0 UNUSED PIN P7 IS OMITTED.

4X 75 DHMS

1000pF 2kV

						REV. :	В	PAGE :	2
ORIGINATED BY	TITLE  10/100BT MagJack®  TAB UP, SHIELDED	PART NO. / DRAWING NO.	STAND	ARD DIM.	[ ] METRIC DIM.		_	_	
CHOW WANCHUNG		SI-50170-F	TOL.	IN INCH	AS REF.	1			
DATE 2018-01-31			.x		UNIT : INCH [mm]			MAGNETI SOLUTION	
DRAWN BY XIE YIMING		FILE NAME SI-50170-F_B.DWG	.XX	<del>/</del>	SCALE : N/A	1	a bel grou		.0110N3
DATE 2018-01-31			.xxx	<u> </u>	SIZE : A4	770			

Chassis GND P8

THE INFORMATION CONTAINED HEREIN IS CONSIDERED "PROPRIETARY" TO BEL FUSE INC. AND SHALL NOT BE NOTES: COPIED, REPRODUCED OR DISCLOSED WITHOUT THE WRITTEN APPROVAL OF BEL FUSE INC. 1, CONNECTOR MATERIALS: HOUSING: THERMOPLASTIC UL94 V-0 CONTACT/SHIELD: COPPER ALLOY SHIELD PLATING: NICKEL OR TIN MAX. CONTACT PLATING: 50 MICRO-INCH SELECTIVE HARD GOLD PLATING bel magnetics OR EQUIVALENT IN CONTACT AREA PATENTED [25,40] 2. PIN NOT ELECTRICALLY CONNECTED MAYBE OMITTED. Part Number SEE ELECTRICAL DRAWING FOR OMITTED PINS. CNTRY YYWW FC 3. TOLERANCES COMPLY WITH F.C.C. DIMENSION REQUIREMENTS. 4. ALL TOLERANCES NOT OTHERWISE SPECIFIED TO BE ±0.005 [0.13] 1,000 5. THE PRODUCT IS ROHS COMPLIANT. 6. THE PART IS RECOMMENDED FOR WAVE SOLDERING, THE SUGGESTED PEAK WAVE SOLDERING CONDITION IS 260°C MAX AND 10 SECONDS MAX. 0,635 [16,13] MAX. **→** (0.708 [17.98]) **→** GREEN **GREEN** (5,21) 0,125±0,010 [3,18±0,25] 599 0 PIN: J1

REV. : В PAGE: ORIGINATED BY PART NO. / DRAWING NO. TITLE STANDARD DIM. [ ] METRIC DIM. ΑΝΤΠΝ Ι ΙΑΠ AS REF. TOL. IN INCH SI-50170-F **DATE** 2018-01-31 10/100BT MagJack® UNIT : INCH [mm] DRAWN BY FILE NAME TAB UP, SHIELDED SCALE: N/A LIU DONGJUN .XX a bel group SI-50170-F B.DWG **DATE** 2018-01-31 SIZE : A4 ±0.005

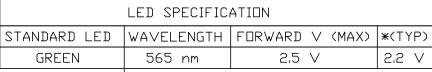
0,425 [10,79]

RoHS

3

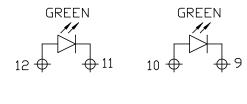
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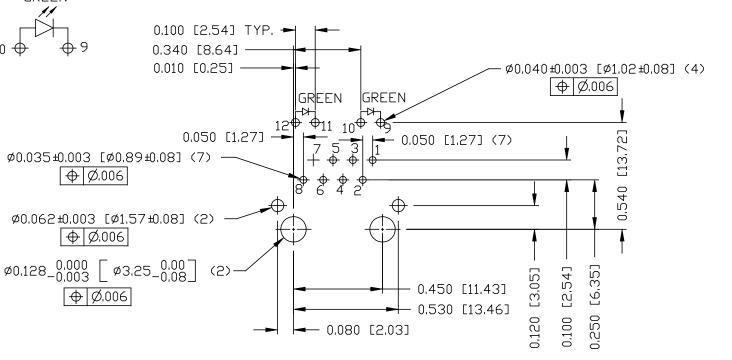
LED POLARITY





\*WITH A FORWARD CURRENT OF 20 mA (TYP)





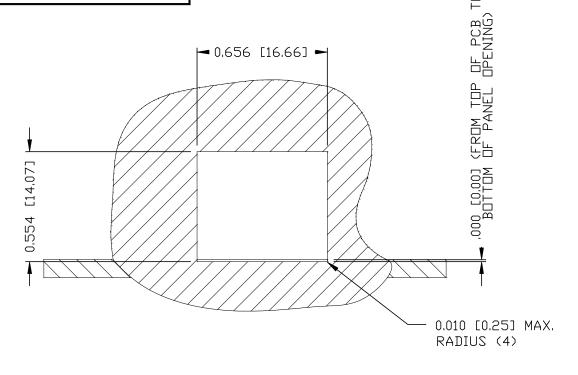
P.C.B. RECOMMENDED HOLE LAYOUT SEEN FROM COMPONENT SIDE ALL CENTERLINE DIMENSIONS ARE BASIC

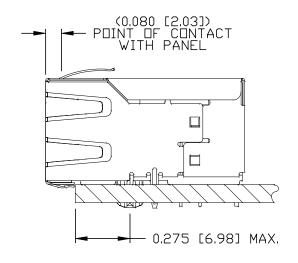
ORIGINATED BY TITLE PART NO. / DRAWING NO. STANDARD DIM. [ ] METRIC DIM. ANTON LIAD AS REF. TOL. IN INCH SI-50170-F DATE 2018-01-31 10/100BT MagJack® UNIT : INCH [mm] DRAWN BY FILE NAME TAB UP, SHIELDED SCALE : N/A LIU DONGJUN .XX SI-50170-F B.DWG **DATE** 2018-01-31 🛨 I SIZE : A4 ±0.005 XXX.



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## SUGGESTED PANEL DPENING

## NOTES:

THE SUGGESTED PANEL OPENING IS INTENDED TO GIVE THE USER THE ABILITY TO HAVE REASONABLE JACK / PANEL CLEARANCES YET MAINTAIN RELIABLE GROUNDING CAPABILITY,

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ORIGINATED BY	TITLE	PART NO. / DRAWING NO.	STANDA	ARD DIM.	[ ] METRIC DIM.	Τ
ANTON LIAO	40.400.77	_ SI_50170_E <b>TOL.</b>		IN INCH	1	
DATE 2018-01-31	10/100BT MagJack®		$\overline{\mathbf{v}}$		UNIT : INCH [mm]	i
DRAWN BY	TAB UP, SHIELDED	FILE NAME	·A			i
LIU DONGJUN		SI-50170-F B.DWG	.XX		SCALE : N/A	ı
<b>DATE</b> 2018-01-31		21-201\0-t \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	.xxx	±0.005	🕀 🔂   SIZE : A4	l

