

REV.	Change Content	Date
A	Initial Release	AUG.17.2019

NOTES: UNLESS OTHERWISE SPECIFIED

1. THIS COMPONENT CONFORMS TO UL60950.

WARNING: 	THIS COMPONENT IS RECOGNIZED BY ONE OR MORE SAFETY AGENCIES SUCH AS UL, VDE, CSA AND/OR TUV. ALL ENGINEERING CHANGES MUST HAVE PRIOR APPROVAL BY THE DESIGN CENTER QUALITY DEPARTMENT FOR SAFETY AGENCY COMPLIANCE.	ECN APPROVAL:
		QA APPROVAL:
		DATE:

2.

NOTICE: 	THIS IS A RoHS COMPLIANT COMPONENT/PRODUCT. ALL ENGINEERING CHANGES MUST HAVE PRIOR APPROVAL BY THE DESIGN CENTER.

3. ELECTRICAL CHARACTERISTICS:

3-1. CURRENT RATING:

0.1A/PIN MIN FOR RJ45 WITH MAGNETICS
 1.5A/PIN MIN FOR GENERAL RJ45
 USBA3.0 1.8A MIN TOTAL FOR VBUS AND GND PIN
 0.25 A MIN TOTAL FOR ALL OTHER CONTACTS

3-2. VOLTAGE RATING:

5VAC FOR RJ45 WITH MAGNETICS
 150VAC FOR GENERAL RJ45
 USBA3.0 9VDC

3-3. LLCR

INITIAL 30 mΩ MAX
 Δ10 mΩ AFTER ENVIRONMENT AND MECHANICAL TEST

3-4. INSULATION RESISTANCE

INITIAL 1000 MΩ MIN
 1000 MΩ AFTER DURABILITY&ENVIRONMENT TEST

3-5. DIELECTRIC WITH STANDING VOLTAGE

THE ELECTRICAL LEAKAGE ≤0.5MA NO VOLTAGE BREAKDOWN

4. MATERIAL

- 4-1 RJ45 HOUSING: THERMOPLASTIC UL 94V-0. PBT, BLACK
- 4-2 USB HOUSING: THERMOPLASTIC UL 94V-0. PBT, BLACK
- 4-3. CONTACT BASE MATERIAL: PHOSPHOR BRONZE
- 4-4. CONTACT UNDERPLATE: 50-90 MICROINCHES DUCTILE NICKEL
- 4-5. CONTACT PLATING: GOLD, 15 MICROINCHS MIN IN CONTACT AREA
- 4-6. CONTACT STRUCTURE: SECONDARY BEND
- 4-7. SOLDER TAIL PLATING MATERIAL: 100-200 MICROINCHS MATTE TIN MIN OVER 50 MICROINCHS NICKEL, MATTE FINISH
- 4-8. FRONT SHIELD: SUS304
BACK SHIELD: BRASS
- 4-9. SHIELD PIN: SOLDER WITH MATTE TIN

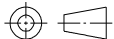
5. JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS PART 68 SUBPART F

6. PCB PLATING: EG (TOP PCB)
ENIG (BOTTOM PCB)

7. JEDEC MOISTURE: LEVEL 1.

8. REVISION: MX1,MX2, ARE PRELIMINARY.

9. RE-GRINDED MATERIAL IS FORBIDDEN IN HUAWEI COMPONENT

>0-6	±0.10	UNITS mm [INCH]	NAME(INTENDED USE)	CZT YI HUA COMMUNICATED CONNECTOR CO., LTD.
>6-15	±0.15	MAT'L	CUSTOMER	
>15-30	±0.20	N/A	PART NO.(INTENDED USE)	TITLE: RJ45 CONNECT W/TRANSFORMER, 1X1 W/2USB3.0,W/LED,1000Base-T
>30-60	±0.25	FINISH	JBGU11480024	
THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF YI HUA COMMUNICATED CONNECTOR CO., LTD. AND SHALL NOT BE REPRODUCED COPIED OR USED IN ANY MANNER WITHOUT THE PRIOR WRITTEN CONSENT OF YI HUA COMMUNICATED CONNECTOR CO., LTD.			APPD: TOPUP.LIU	DWG NO: 
			Q'TY N/A	
			CHKD: ZHANGCHAO	SCALE SHEET REV. N/A 1/8 A
			DR: CHENLINGJUAN	

NOTES: UNLESS OTHERWISE SPECIFIED

10. MECHANICAL

10-1. INSERTION FORCE

RJ45 BEFORE DURABILITY:MAX 22N

AFTER DURABILITY:MAX 22N

USBA3.0 INSERTION FORCE $\geq$ 6N, $\leq$ 20N BEFORE AND AFTERDURABILITY

10-2. EXTRACTION FORCE

RJ45 BEFORE DURABILITY:MAX 22N(REMOVE LOCK BUCKLE)

MIN 100N(WITH LOCK BUCKLE)

RJ45 AFTER DURABILITY:MAX 22N(REMOVE LOCK BUCKLE)

MIN 100N(WITH LOCK BUCKLE)

USBA3.0 EXTRACTION FORCE $\geq$ 6N, $\leq$ 20N AFTER DURABILITY

10-3. CONTACT NORMAL FORCE

RJ45 BEFORE DURABILITY:MAX 1N

AFTER DURABILITY:MIN 0.8N

USBA3.0 0.30N MIN BEFORE DURABILITY TEST

0.2N MIN AFTER DURABILITY TEST

10-4. CONTACT RETENTION FORCE

RJ45 CONTACT EXTRACTION FORCE 10N MIN

USBA3.0 CONTACT EXTRACTION FORCE 8N MIN

10-5. DURABILITY

RJ45-750 TIMES(REMOVE LATCH)

USB3.0-5000TIMES

TERMINALS AND PLASTICS WITHOUT DAMAGE,CRACKS.DEFORMATION AND OTHER BAD.WELDING FEET WITHOUT OPEN WELDING.

CONTACT RESISTANCE,INSERTION FORCE AND PULL OUTPUT TO MEET THE SPECIFICATIONS

10-6. RJ45 CURRENT:0.1A/PIN MIN FOR RJ45 WITH MAGNETICS

1.5A/PIN MIN FOR GENERAL RJ45

RJ45 VOLTAGE:5VAC FOR RJ45 WITH MAGNETICS

150VAC FOR GENERAL RJ45

USBA3.0 CURRENT:1.8A MIN TOTAL FOR VBUS AND GND PIN,0.25 A MIN TOTAL FOR ALL OTHER CONTACTS

USBA3.0 VOLTAGE:9VDC

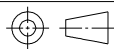
10-7. OPERATING TEMPERATURE RANGE: 0 TO +70°C

10-8. STORAGE TEMPERATURE RANGE: -40 TO +85°C

10-9. SOLDER CONDITION: WAVE SOLDER 265 $\pm$ 5°C FOR 10 SECONDS MAX

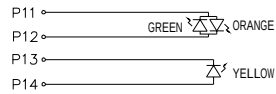
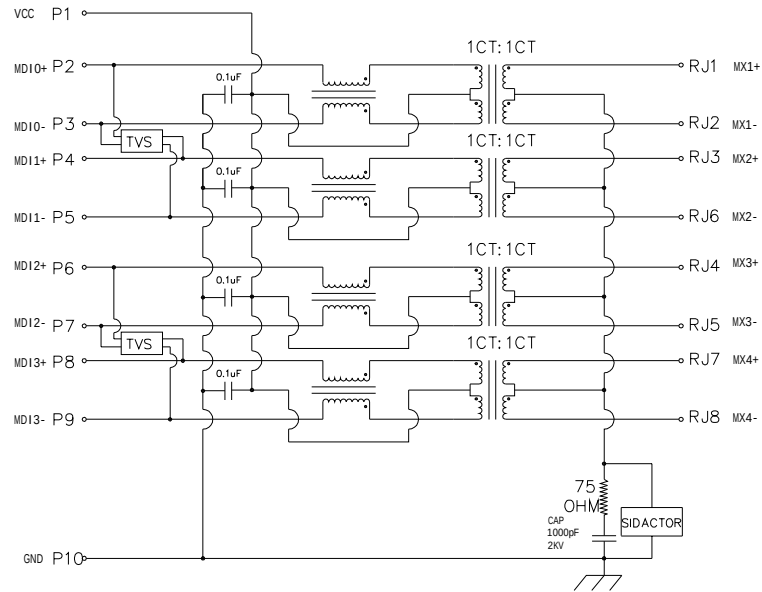
USBA 3.0(SI REQUIREMENT,USBA 3.0)

Differential Impedance	Maximum: 105 Ω Minimum: 75 Ω
Differential Insertion Loss (DDIL)	SS pairs $\geq$ -1.5 dB for 100MHz; $\geq$ -5 dB for 1.25GHz; $\geq$ -7.5 dB for 2.5GHz; $\geq$ -25 dB for 7.5GHz; DD (D+/D-) -0.67 dB Maximum @ 12 MHz -0.95 dB Maximum @ 24 MHz -1.35 dB Maximum @ 48 MHz -1.90 dB Maximum @ 96 MHz -3.20 dB Maximum @ 200 MHz -5.80 dB Maximum @ 400MHz
Differential Near End & Far End Crosstalk Between Super Speed Pairs	频域要求: $\leq$ -27dB for 100MHz; $\leq$ -27dB for 2.5GHz; $\leq$ -23dB for 3GHz; $\leq$ -23dB for 7.5GHz; 时域要求: The Peak-to-Peak value shall be less than 1.2% of input voltage swing
Differential Near End & Far End Crosstalk Between D+/D- and Super Speed Pairs	频域要求: $\leq$ -21dB for 100MHz; $\leq$ -21dB for 2.5GHz; $\leq$ -15dB for 3GHz; $\leq$ -15dB for 7.5GHz; 时域要求: The Peak-to-Peak value shall be less than 2% of input voltage swing
Differential to Common Mode	$\leq$ -20dB for 100MHz; $\leq$ -20dB for 6GHz; $\leq$ -20dB for 7.5GHz;
Propagation Delay	D+/D- $\leq$ 10ns for a cable assembly attached with one or two micro connectors

>0-6	± 0.10	UNITS mm [INCH]	NAME(INTENDED USE)	CZT YI HUA COMMUNICATED CONNECTOR CO., LTD.
>6-15	± 0.15	MAT'L	CUSTOMER	
>15-30	± 0.20	N/A	PART NO.(INTENDED USE)	TITLE: RJ45 CONNECT W/TRANSFORMER, 1X1 W/2USB3.0,W/LED,1000Base-T
>30-60	± 0.25	FINISH	JBGU11480024	
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			CHKD: ZHANGCHAO DR: CHENLINGJUAN	 SCALE SHEET REV. N/A 2/8 A

LANCHIP SIDE

CABLE SIDE



SCHEMATIC

ELECTRICAL CHARACTERISTICS AT +25°C UNLESS OTHERWISE SPECIFIED
(FOR REFERENCE ONLY. USED FOR CUSTOMER INFORMATION.)

PARAMETER	SPECIFICATIONS	
URNS RATIO	1.00 ± 2%	
POLARITY	PER SCHEMATIC	
INSERTION LOSS	1-100MHz	100-125MHz
	-1.0 dB MAX	-1.2 dB MAX
RETURN LOSS Z OUT=100 OHM ±15%	1-40 MHz	40-100 MHz
	-18 dB MIN	-12+20*LOG(f/80) dB MIN
INDUCTANCE (OCL) MEDIA SIDE, 0°C-70°C	350 uH MIN	(MEASURED AT 100 KHz, 100 mVRMS AND WITH 8 mA DC BIAS)
CROSSTALK, ADJACENT CHANNELS	1-100 MHz	
	-30 dB MIN	
COMMON MODE REJECTION RATIO	1- 100 MHz	
	-30 dB MIN	
INPUT - OUTPUT ISOLATION	2250 VDC MINIMUM FOR 60 SECONDS	
WORKING VOLTAGE	BELOW 24 VOLTAGES	

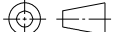
SURGE PROTECTION: IEC 61000-4-5(Lightning)(10/700us)

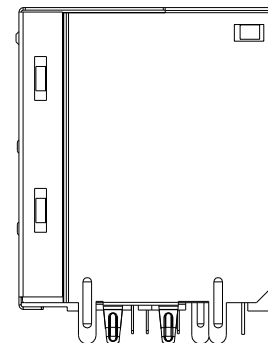
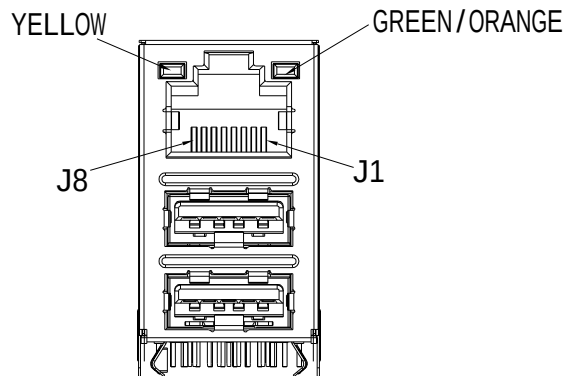
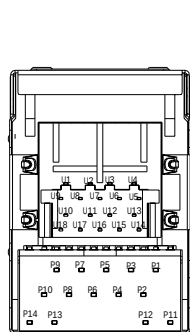
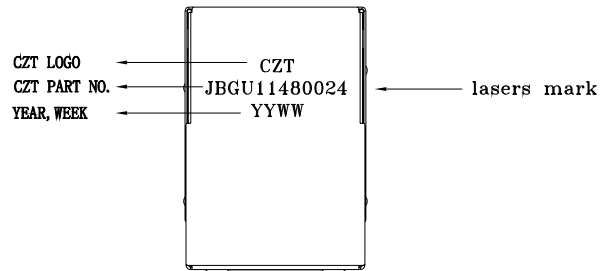
LINE TO LINE:±2KV

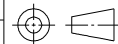
LINE TO GND:±6KV

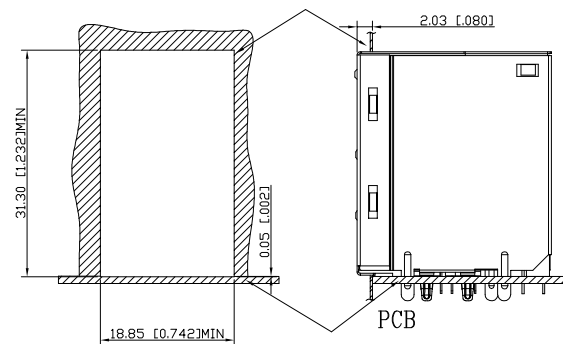
NOTE: f IS FREQUENCY IN MHZ.

项 目 Item	LED 左灯需求规格 Requirements of Specification			LED 右灯需求规格 Requirements of Specification		
	下限值	典型值	上限值	下限值	典型值	上限值
类别 Category	/	单色-黄色	/	/	双色(橙/绿)	/
正向电流IF Forward Current	25mA@25℃	/	/	25mA@25℃ (橙/绿)	/	/
反向电压VR Reverse Voltage	/	5V	/	/	5V(橙/绿)	/
反向漏电流IR Reverse Current	/	/	10uA@5V	/	/	10uA@1V(橙/绿)
亮度v Luminous Intensity	2mcd@20mA	/	12mcd@20mA	2mcd@20mA 橙 4 mcd@20mA 绿	/	12mcd@20mA 橙 16mcd@20mA 绿
正向压降VF Forward Voltage	1.8V@20mA	/	2.4V@20mA	1.8V @20mA 橙 1.8V @20mA 绿	/	2.4V @20mA 橙 2.6V @20mA 绿
耗散功率Pd Power Dissipation	/	80mW	/	/	80mW(橙/绿)	/
波长λd Dominant Wavelength	584 nm	/	592 nm	600 nm 橙 564 nm 绿	/	610 nm 橙 574 nm 绿

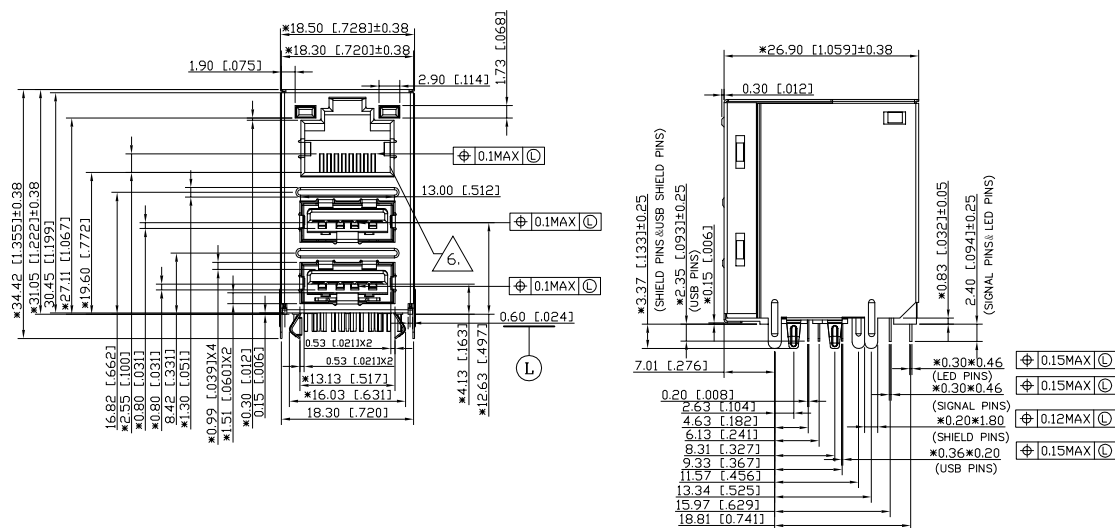
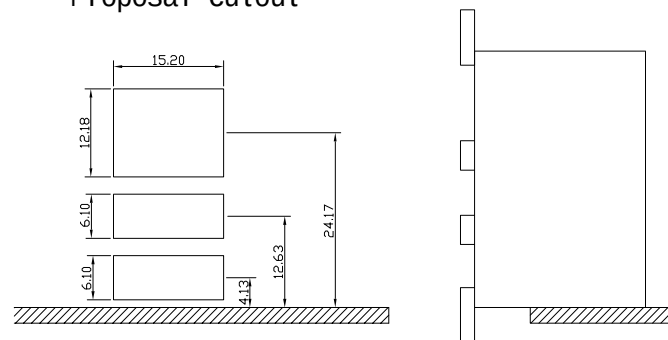
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			N/A									
			Q'TY	CHKD: ZHANGCHAO								
N/A	DR: CHENLINGJUAN			 <table><tr><td>SCALE</td><td>SHEET</td><td>REV.</td></tr><tr><td>N/A</td><td>3/8</td><td>A</td></tr></table>			SCALE	SHEET	REV.	N/A	3/8	A
SCALE	SHEET	REV.										
N/A	3/8	A										



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			SCALE	SHEET	REV.		
			N/A	4/8	A		



Proposal cutout



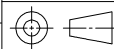
* 各种带符号的尺寸说明

* 尺寸表示重点尺寸

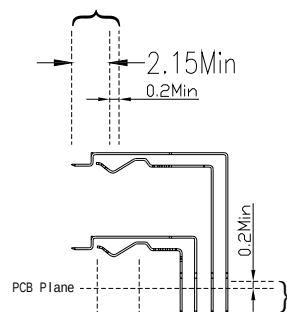
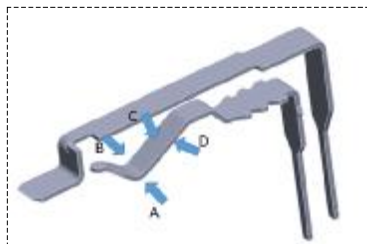
○ 尺寸表示SPC管控尺寸, 有CPK要求

() 尺寸表示参考尺寸

□ 尺寸表示理论尺寸, 为其他尺寸的测量位置提供参考

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			DR: CHENLINGJUAN	
			Q'TY	SCALE
			N/A	SHEET
				REV.
				N/A 5/8 A

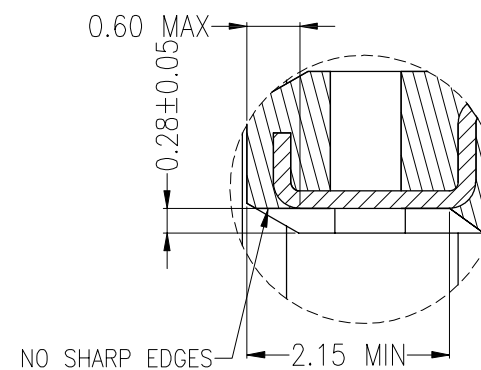
Side A:
Min0.38um Au/1.27-7.6um Ni
overall/sealing treatment



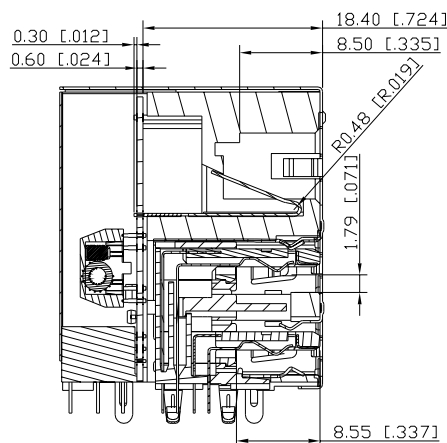
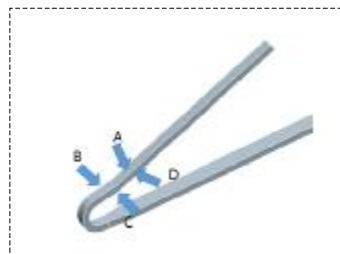
2.40Min

Side A:
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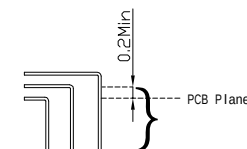
Side A/B/C/D:
Min 2.0um Sn(Matting-Tin)/0.25um Ni
overall/sealing treatment



DETAIL B
SCALE 5:1

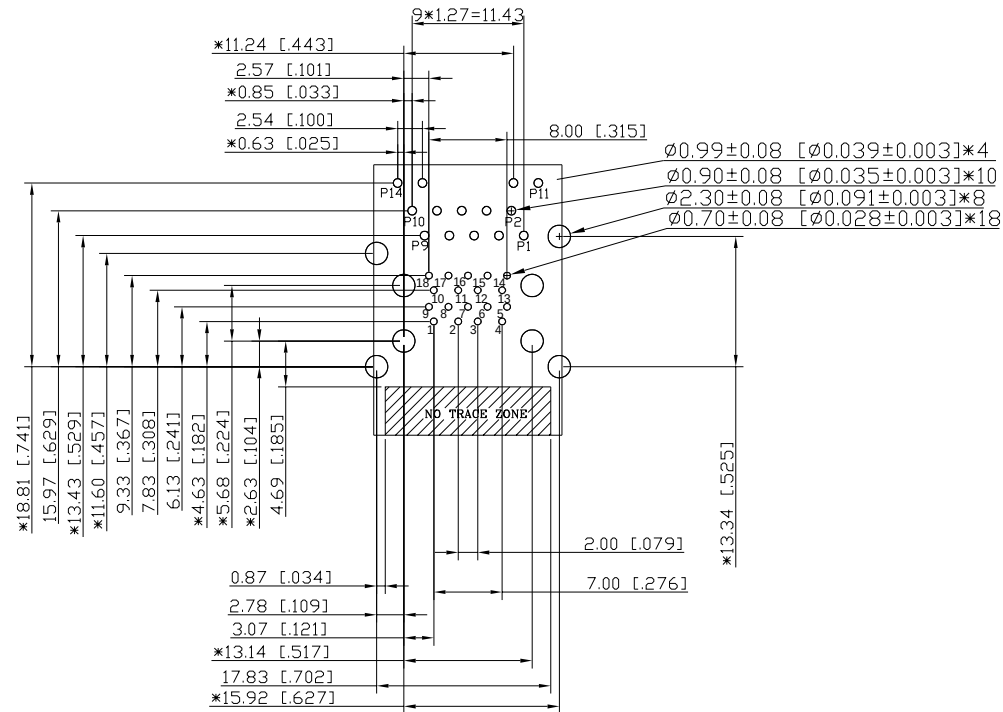


Side A:
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overall/sealing treatment



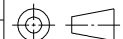
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overall/sealing treatment

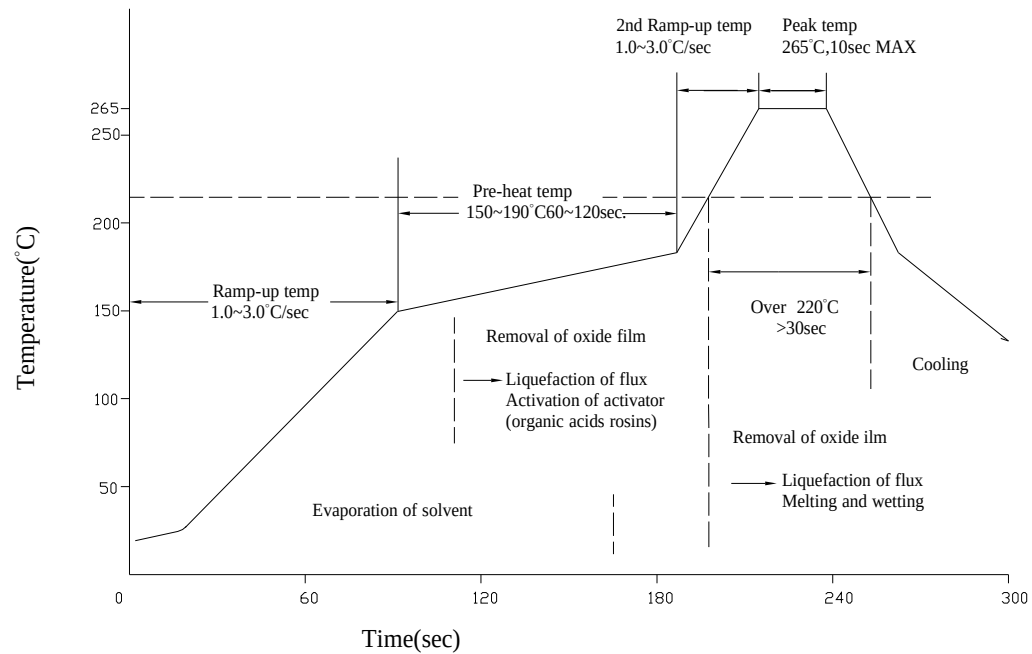
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			DR: CHENLINGJUAN	
				SCALE SHEET REV.
				N/A 6/8 A

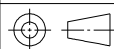


Plug In Side

RECOMMENDED PCB LAYOUT
(VIEWED FROM COMPERNENT SIDE)

>0-6	±0.10	UNITS ^{mm} [INCH]	NAME<INTENDED USE>	CZT			
>6-15	±0.15	MAT'L	CUSTOMER	YI HUA COMMUNICATED CONNECTOR CO., LTD.			
>15-30	±0.20	N/A	PART NO.<INTENDED USE>	TITLE:			
>30-60	±0.25	FINISH	JBGU11480024	RJ45 CONNECT W/TRANSFORMER, 1X1 W/2USB3.0,W/LED,1000Base-T			
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			Q'TY	CHKD: ZHANGCHAO			
N/A			DR: CHENLINGJUAN	SCALE			
				N/A	7/8	A	



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		Q'TY			N/A					
			DR: CHENLINGJUAN	<table><tr><td>SCALE</td><td>SHEET</td><td>REV.</td></tr><tr><td>N/A</td><td>8/8</td><td>A</td></tr></table>	SCALE	SHEET	REV.	N/A	8/8	A
SCALE	SHEET	REV.								
N/A	8/8	A								