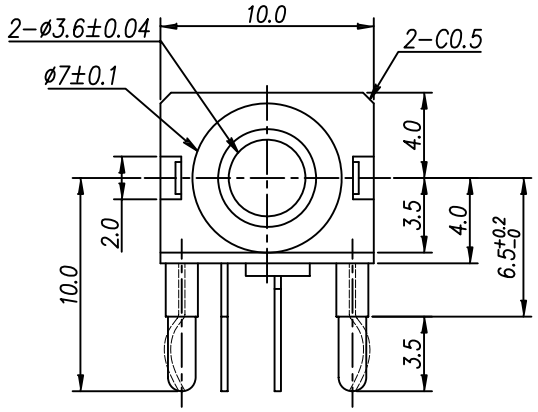
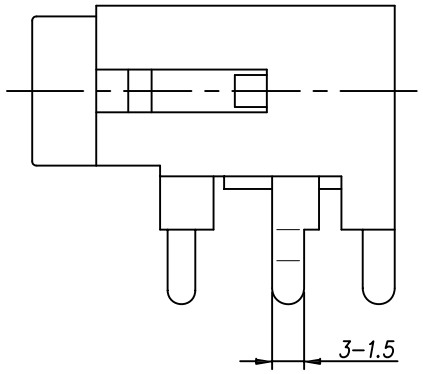
DWG. NO. JK-4273-A REV. "-"

PART NO. RSJ-3550H-XX-XXX-NL

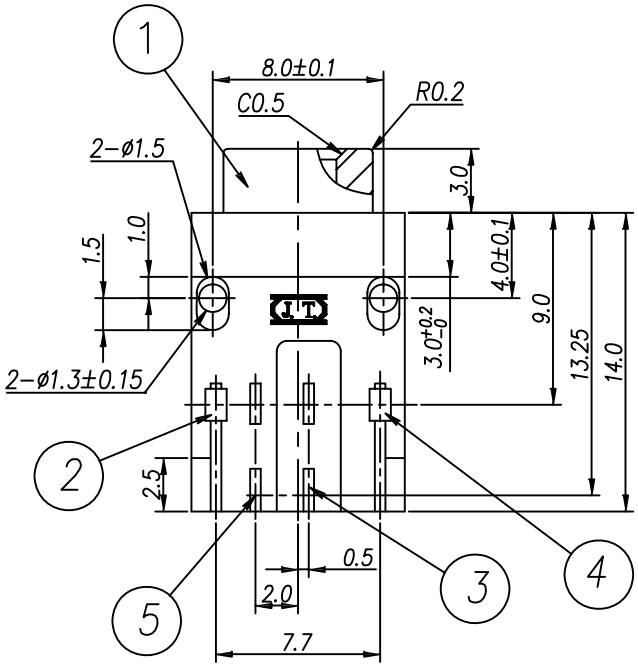


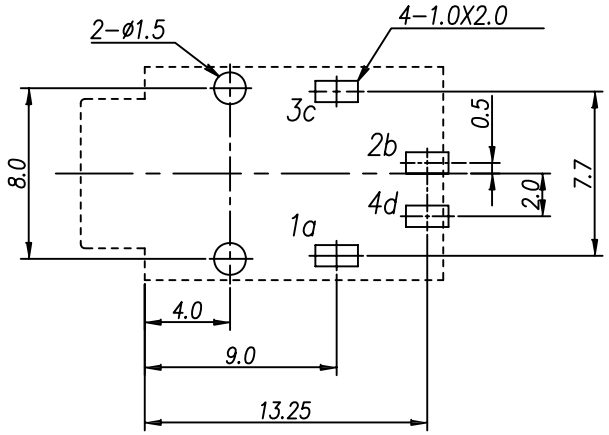


RDI P/N :
RSJ-3550H-XX-XXX-NL
1 2 3 4
1) SERIES PART NO.
2) PLATING TABLE C (a1, 01)
3) CIRCUIT TABLE A PART NUMBER
4) ROHS COMPLIANT

NO.	PRODUCT NO.	TERMINAL
2	RSJ-3550H-a1-020-NL RSJ-3550H-a1-030-NL RSJ-3550H-a1-130-NL RSJ-3550H-a1-340-NL	Au : 0.04~0.06μm
1	RSJ-3550H-01-020-NL RSJ-3550H-01-030-NL RSJ-3550H-01-130-NL RSJ-3550H-01-340-NL	Sn-Cu: 3~4μm Ag : 0.3~1μm

TABLE C : Plating





TOLERANCE ±0.1

PCB LAYOUT
(BOTTOM VIEW)

NO.	PRODUCT NO.	HOUSING NO.	COLOR	REMARK
1	RSJ-3550H-01-XXX-NL	RSJ-3550H-01-aXBP-NL	BLACK	(RoHS Fit, 94V-0)

TABLE B : Color of Housing

SCHEMATIC				
	RSJ-3550H-a1-020-NL	RSJ-3550H-a1-030-NL	RSJ-3550H-a1-130-NL	RSJ-3550H-a1-340-NL
	RSJ-3550H-01-020-NL	RSJ-3550H-01-030-NL	RSJ-3550H-01-130-NL	RSJ-3550H-01-340-NL
	1a, 3c	1a, 4d, 3c	1a, 2b, 3c	1a, 4d, 2b, 3c

TABLE A : Circuit

No.	PART NAME	MATERIAL	Q'TY	PLATED/COLOR	PART NO.
5	BODY	PBT RoHS	1	BLACK	PBT# 1410G3
4	No.4 RING	C5191R-H t=0.3	1	SEE TABLE	RSJ-3550H-XX-030-NL
3	No.3 TIP	C5210R-H t=0.3	1	SEE TABLE	RSJ-3550H-XX-020-NL
2	No.2 BREAK-T	C2680R-H t=0.4	1	SEE TABLE	RSJ-3550H-XX-130-NL
1	No.1 EARTH	C5191R-H t=0.3	1	SEE TABLE	RSJ-3550H-XX-020-NL

TABLE D : Parts of Product

NOTES: ALL DIMS ARE IN mm

ECN#	DATE	SYM	REVISION RECORD	AUTH	BY

PROJECTION

SCALE N/A

TOLERANCE EXCEPT AS NOTED

DEC. MILLIMETERS N/A

ANG. N/A

RDI

Research Develop Innovate

RDI, Inc. 333 North Bedford Road, Suite 135, Mount Kisco, NY 10549

TITLE: 3.5mm audio jack, hi temp, RoHS Compliant

DR.	DATE	REF.	SHEET
Tina	05/05/12	P/N: RSJ-3550H-XX-XXX-NL	1 OF 3

CK.	PRE-	DRAWING NO.	SIZE	REV.
BM	JK	4273	A	-

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DESC-RIPTION
TITLE : 3.5mm AUDIO JACK, HI TEMP, RoHS COMPLIANT
P/N : RSJ-3550H-XX-XXX-NL

1. RATED

1.1 RATED VOLTAGE : DC 12V
1.2 RATED CURRENT : DC 1A
1.3 TEMPERATURE RANGE : -25~70°C
1.4 HUMIDITY RANGE : 85% RH MAX
1.5 TEST CONDITION
UNLESS OTHERWISE SPECIFIED HEREIN,ALL MEASUREMENTS AND TESTS SHALL BE MADE AT TEMPERATURE OF 5°C~35°C AND RELATIVE HUMIDITY OF 45% ~ 85%.

2.ELECTRICAL EFFICIENCY

ITEM	TEST CONDITIONS	PERFORMANCE
2.1 DIELECTRIC STRENGTH	500V AC APPLIED BETWEEN MUTUAL INSULATED METAL PARTS FOR ONE MINUTE.	NOT BREAKING INSULATION
2.2 INSULATION RESISTANCE	500V DC APPLIED BETWEEN MUTUAL INSULATED METAL PARTS . INITIAL AFTER HEAT TEST AFTER COLD TEST AFTER RESISTANCE TO SOLDERING TEST AFTER LIFE TEST AFTER TEMPERATURE CYCLING TEST AFTER HUMIDITY TEST	>=100MΩ >=50MΩ
2.3 CONTACT RESISTANCE	MEASURE AT A CURRENT OF LESS THAN 100mA 1KHz. THE GAUGE PLUG USED SHALL BE CLEANED AND FREE FROM OXIDATION FILM OF THE SURFACE. INITIAL AFTER HUMIDITY TEST AFTER HEAT TEST AFTER COLD TEST AFTER RESISTANCE TO SOLDERING TEST AFTER LIFE TEST AFTER TEMPERATURE CYCLING TEST AFTER HUMIDITY TEST	<=50MΩ <=100MΩ

3. MECHANICAL EFFICIENCY

ITEM	CONDITION	INSERTION	WITHDRAWAL
INSERTION FORCE AND WITHDRAWAL FORCE	WITH THE GAUGE PLUG AS SHOW IN 8. INITIAL AFTER HUMIDITY TEST AFTER HEAT TEST AFTER COLD TEST AFTER RESISTANCE TO SOLDERING TEST AFTER LIFE TEST AFTER TEMPERATURE CYCLING TEST	0.3 ~ 3.0 kgf (2.94 ~ 29.4N)	0.3 ~ 3.0 kgf (2.94 ~ 29.4N)

3.1 TERMINAL STRENGTH

EVERY TERMINAL SHALL BE CAPABLE OF WITHSTAND A FORCE OF 500g(4.0N) ON 10 SECONDS WITHOUT LOOSING AND BREAKDOWN,BUT DEFORMATION OF TERMINAL IS AUTHORIZED.
THE JACK FIXED ON PCB,THEN SHALL BE CAPABLE OF INSERTED THE GAUGE PLUG AT 150 TIMES, WITHOUT LOOSING AND BREAKDOWN ,BUT FORCE OF INSERTED THE GAUGE PLUG SHALL BE LESS THAN 3kgf.(29.4N)

4. CONSTRUCTION

4.1 MATING LIMIT

MATING LIMIT OR RANGE OF BETWEEN THE PLUG AND SPRING OF 3.5Ø JACK SHALL BE NOT REGULATED.

4.2 CONNECTION LIMIT

THE 3.5Ø JACK SHALL BE PERMITTED WITH CONNECTION TIMING WHETHER SHORTING OR NOT BETWEEN THE MUTUALLY SEPARATED TERMINALS OR SPRING OF THE 3.5Ø JACK,DURING THE PLUG INSERTING AND EXTRACTING.

4.3 CREEPAGE DISTANCE AND SPACING

CREEPAGE DISTANCE AND SPACING BETWEEN MUTUALLY INSULATED PARTS BE 0.2mm MINIMUM,THESE DISTANCE AND SPACING SHALL BE MAINTAINED WITH OR WITHOUT THE GAUGE PLUG INSERTED.

NOTES: ALL DIMS ARE IN mm

PROJECTION	RDI Research Develop Innovate RDI, Inc. 333 North Bedford Road, Suite 135, Mount Kisco, NY 10549			
SCALE N/A	TITLE: 3.5mm audio jack, hi temp, RoHS Compliant			
TOLERANCE EXCEPT AS NOTED	DR. Tina	DATE 05/05/12	REF. P/N: RSJ-3550H-XX-XXX-NL	SHEET 2 OF 3
DEC. MILLIMETERS N/A	CK. BM	PRE- JK	DRAWING NO. 4273 / SIZE A	REV. -
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5. ENVIRONMENTAL

5.1 LIFE TEST

THE LIFE TEST SHALL CONSIST OF 3000 CYCLES OF INSERTION AND WITHDRAWAL WITH GAUGE PLUG COVERED WITH A THIN COAT OF GREASE IN ORDER TO PREVENT FROM HEATING OR WEARING,AT A RATE OF 20 TO 30 CYCLES PER MINUTE UNDER NO LOAD.AT THE CONCLUSION OF THIS TEST,THE JACK SHALL COMPLY WITH PARAGRAPH 3 & 4,AND BE IN OPERATING CONDITION.

5.2 HUMIDITY TEST

THE 3.5Ø JACK SHALL BE SUBJECTED TO TEMPERATURE OF 40±2°C AND RELATIVE HUMIDITY OF 90% TO %95 FOR A PERIOD OF 96 HOURS.
UPON COMPLETION OF THE EXPOSURE,DEWDROPS SHALL BE BLOW OUT AND REMOVED FROM THE JACK,AFTER WHICH THE JACK SHALL BE CONDITIONED AT ROOM AMBIENT CONDITIONS FOR 30 MINUTES.AT THE CONCLUSION OF THIS TEST,THE 3.5Ø JACK SHALL COMPLY WITH PARAGRAPH 3 & 4.

5.3 HEAT TEST

THE 3.5Ø JACK SHALL BE SUBJECTED TO TEMPERATURE OF 70±2°C FOR A PERIOD OF 96 HOURS. THEN SHALL BE ALLOWED TO REMAIN IN ROOM AMBIENT CONDITIONS FOR 30 MINUTES.AT THE CONCLUSION OF THIS TEST,THE PIN JACK SHALL COMPLY WITH PARAGRAPH 3 & 4.

5.4 COLD TEST

THE 3.5Ø JACK SHALL BE SUBJECTED TO TEMPERATURE OF -40±3°C FOR A PERIOD OF 96 HOURS. THEN SHALL BE ALLOWED TO REMAIN IN ROOM AMBIENT CONDITIONS FOR 30 MINUTES.AT THE CONCLUSION OF THIS TEST,THE PIN JACK SHALL COMPLY WITH PARAGRAPH 3 & 4.

5.5 RESISTANCE TO SOLDERING HEAT TEST

THE JACK TERMINAL SHALL BE DIPPED IN SOLDER UNDER THE CONDITION AS SPECIFIED BELLOW. AT THE CONCLUSION OF THIS TEST,THE 3.5Ø JACK SHALL COMPLY WITH PARAGRAPH 3 & 4, AND NOT SHOW REMARKABLE FAILURE.

5.5.1 THE TERMINAL FOR A PRINTED CIRCUIT BOARD.

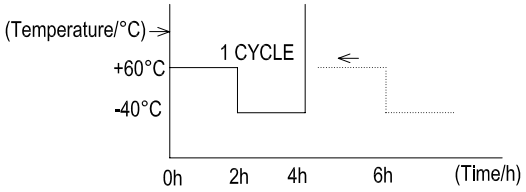
TEMPERATURE OF SOLDER : 260 ± 5°C; DIP TIME : 5 ± 1 SECONDS.

5.5.2 THE TERMINAL FOR A LEAD WIRE.

TEMPERATURE OF SOLDER : 350 ± 10°C; DIP TIME : 3 ± 0.5 SECONDS.

5.6 TEMPERATURE CYCLING TEST

THE JACK SHALL BE SUBJECTED TO THE CONDITIONS AS SHOW IN FIG AS FOLLOWS, AND THEN SHALL RETURNED AND ALLOWED TO REMAIN IN ROOM AMBIENT CONDITIONS FOR 30 MINUTES.AT THE CONCLUSION OF THIS TEST,THE PIN JACK SHALL COMPLY WITH PARAGRAPH 3 & 4.



5.7 SOLDERING TEST

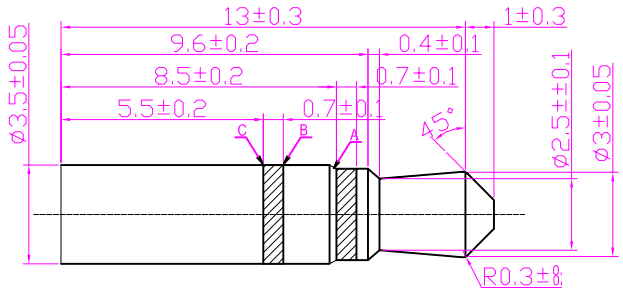
AREA OF SOLDERING SHALL BE CAPABLE OF 3/4 OR MORE OF DIP TERMINAL AREA.
CONDITION: TERMINAL OF SOLDER : 260 ± 5°C;TIME OF DIP :5±0.5sec.
LENGTH OF DIP : 2 ± 0.5mm(FROM TOP OF TERMINAL)

6. OTHERS

WHEN THE AMENDMENT OF THIS SPECIFICATION COMES INTO NECESSITY, IT SHALL BE MADE BY THE MUTUAL CONSULTATION AND AGREEMENT BETWEEN MANUFACTURER AND CUSTOMER.

7. MATED PLUG

SURFACE ROUGHNESS : PEAK-TO-VALLEY HEIGHT OF 0.8 MICRON MAX.
FOR INSERTION AND DRAWING FORCE.
MATERIAL : STAINLESS STEEL;
FINISH : CHROMIUM PLATED.
FOR CONTACT RESISTANCE.
MATERIAL : BRASS;
FINISH : SILVER PLATED.



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