

Apr. 1. 2026 Copyright 2026 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

Rev.	Count	Description of rev.	BY	CHKD	Date	Rev.	Count	Description of rev.	BY	CHKD	Date
△	-	Preliminary drawing	JSK	LHJ	24.01.12						
①	-	RE-2-2536(M.P. Release)	JSK	LHJ	24.04.01						
②											
Applicable standard		Universal Serial Bus Type-C Connectors and Cable Assemblies Compliance Document Revision 2.1b									
Rating	Voltage	48V AC/DC									
	Current	1.25A max. for each power pin (A1, A4, A9, A12, B1, B4, B5, B9, B12) 0.25A max. for the others.									
Operating condition		-40℃~+105℃(Including temp. rise), 95% R.H. max.(Non-condensing)									
Storage condition		-10℃~+60℃(With packing), 15%~70% R.H.									

SPECIFICATIONS

No	TEST ITEM	TEST METHOD	TEST REQUIREMENT	QT	AT
CONSTRUCTION					
1	General Examination	EIA 364-18 Visual inspection	No physical damage	O	O
ELECTRICAL CHARACTERISTICS					
2	Low level contact resistance	EIA 364-23 Measure at 20mV max open circuit at 100mA max. (DC or 1000Hz) 4-wire measurement is required and the resistance of PCB termination shall be deducted from the reading.	Initial : 40mΩ max After test : 50mΩ max	O	-
3	Dielectric Withstanding Voltage	EIA 364-20 Measure per Method B with unmated condition. 100V AC RMS for 1 minute at sea level.	No disruptive discharge.	O	-
4	Insulation resistance	EIA 364-21 500V DC with unmated and mated condition.	100MΩ min.	O	-
5	Temperature Rise	IEC60529, EIA-364-70, method B : A current of 5.0 A shall be applied collectively to Vbus pins (i.e., pins A4, A9, B4, and B9) and 1.25 A applied to the Vconn pin (i.e., B5 of the plug connector) with the return path through the corresponding GND pins (i.e., pins A1, A12, B1, and B12). A minimum current of 0.25 A shall also be applied individually to all the other contacts.	Temperature rise shall not exceed 30℃ above the ambient temperature.	O	-
MECHANICAL CHARACTERISTICS					
6	Durability	EIA 364-09 Mated 10,000 times Mechanically operated : 500±50cycles/hr Mating stroke : 2.75mm Insertion, extraction force shall be measured at a maximum speed of 12.5mm/min	No physical damage.	O	-

Remarks	Drawn	Designed	Checked	Approved	Release
		S.K.JANG 24.01.12	S.K.JANG 24.01.12	H.J.LEE 24.01.12	H.J.LEE 24.01.12

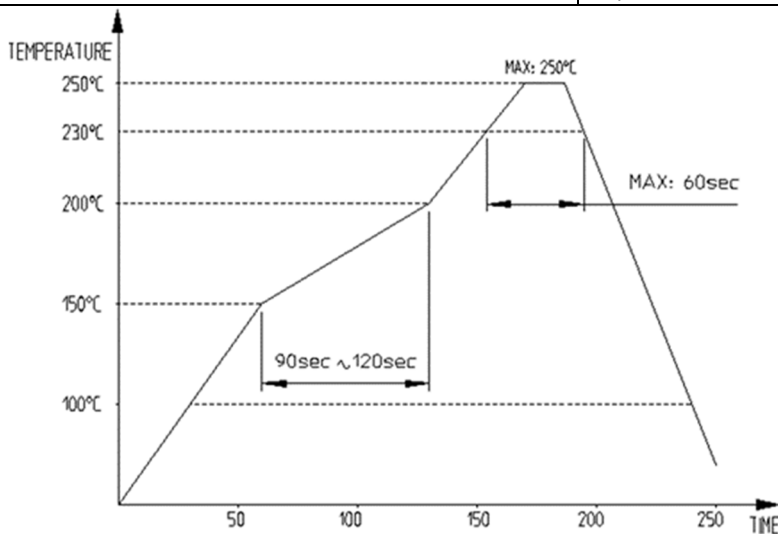
[Note] QT : Qualification test, AT : Assurance test, O : Applicable, - : Not applicable

Drawing No. ELC4-634249	CL No. CL 6251-0002-5	Part No. CX81B-24S1
-----------------------------------	---------------------------------	-------------------------------

7	Random Vibration	EIA 364-28 Test Condition VII, Test Letter D Mated specimens to 3.10 G's RMS between 20 to 500Hz 15 minutes in each of 3 mutually perpendicular planes.	① No physical damage. ② No discontinuity of over than 1μs.	O	-
---	------------------	--	--	---	---

ENVIRONMENTAL CHARACTERISTICS

8	Temperature Life	EIA 364-17, Method A 105°C without applied voltage for 120 hours.	No physical damage.	O	-
9	Cyclic Temperature and Humidity	EIA 364-31 25±3°C at 80±3% RH for 1 hour. 65±3°C at 50±3% RH for 1 hour. Thermal ramp : 0.5 hour Number of cycles : 24 cycles	No physical damage.	O	-
10	Thermal Shock	EIA 364-32 10 cycles -55°C and +105°C	No physical damage.	O	-
11	Solderability	EIA 364-52 Dwell in 245±5°C of the solder bath for 5 sec.	Solder coverage shall be 95% min. of the immersed surfaces.	O	-
12	Salt Spray	EIA 364-26 5% of NaCl in 35°C for 48 hours.	No corrosions that affect to the connector operation.	O	-
13	High Temperature and Humidity	EIA-364-31 High-temperature 85°C/85% RH for 120 hours.	No physical damage. No change to performance.	O	-
14	Mixed Flowing Gas	EIA 364-65 Measure Environment 30°C/70%RH CL2 10±3ppb, No2 200±50ppb, H2S 10±5ppb, SO2 100±20ppb Expose half of sample mated for 1/3 days and then unmated for 2/3 days .The others are exposed mated for full 7 days test period.	No corrosions that affect to the connector operation.	O	-
15	Reflow Heat	Reflow profile Fig.1 Peak 250°C max for 2 times.	No deformation of mold. No shape of blister and Popcorn.	O	-



[Fig.1] REFLOW TEMPERATURE

[Note] QT : Qualification test, AT : Assurance test, O : Applicable, - : Not applicable		
Drawing No. ELC4-634249	CL No. CL 6251-0002-5	Part No. CX81B-24S1
HRS HIROSE KOERA.CO.,LTD		PRODUCT SPECIFICATION
		2/3

Apr.1.2026 Copyright 2026 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

Test Sequence Table

No	Test item	Test Group									
		A	B	C	D	E	F	G	H	I	J
1	Examination of product	1, 10	1, 6	1, 6	1, 6	1, 6	1, 3	1, 6	1, 6	1, 6	1, 4
2	Low Level Contact Resistance	3, 9	3, 5	3, 5	3, 5	3, 5		3, 5	3, 5	3, 5	
3	Dielectric Withstanding Voltage	4, 8									
4	Insulation Resistance	5, 7									
5	Temperature Rise										3
6	Durability	6									
7	Random Vibration		4								
8	Temperature Life			4							
9	Cyclic Temperature and Humidity				4						
10	Thermal Shock					4					
11	Solderability						2				
12	Salt Spray							4			
13	High Temperature and Humidity								4		
14	Mixed Flowing Gas									4	
15	Reflow Heat	2	2	2	2	2		2	2	2	2

REMARKS

1) Numbers in the table above indicate the sequence corresponding to each test group.

[Note] QT : Qualification test, AT : Assurance test, O : Applicable, - : Not applicable		
Drawing No. ELC4-634249	CL No. CL 6251-0002-5	Part No. CX81B-24S1
HRS HIROSE KOERA.CO.,LTD		PRODUCT SPECIFICATION
		3/3