

Distributed by:

JAMECO[®]
ELECTRONICS

www.Jameco.com ♦ 1-800-831-4242

The content and copyrights of the attached
material are the property of its owner.

Jameco Part Number 878382

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 2 to 15 circuits
- Molded friction lock
- Optional locking ramp version
- Stackable end-to-end

Reference Information

Packaging: Bulk
UL File No.: E29179
CSA File No.: LR19980
Mates With: KK 2.50mm (.098") headers or 0.64mm (.025")
staked pins, [5045-NA](#) and [5046-NA](#)
Use With: [2759](#) and [5159](#) terminals
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 3.0A
Contact Resistance: 20mΩ max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 MΩ min.

Physical

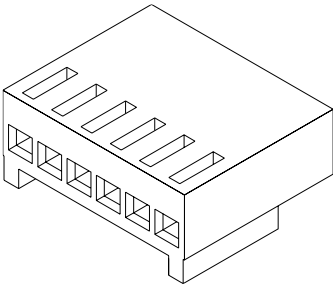
Housing: 6/6 nylon, UL 94V-0
Operating Temperature: -40 to +105°C



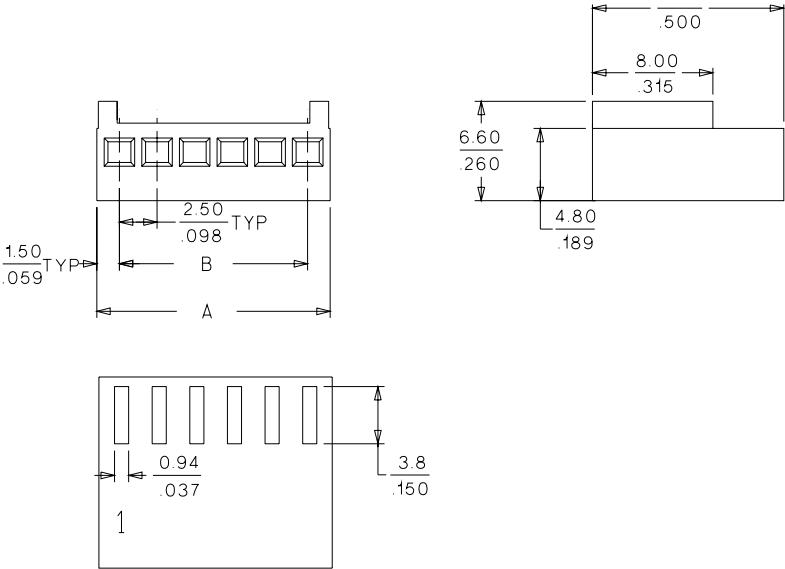
2.50mm (.098") Pitch
KK®
Crimp Terminal Housing

5051-N

Polarized



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.	Dimension	
		A	B
2	22-01-1022	5.50 (.216)	2.50 (.098)
3	22-01-1032	8.00 (.315)	5.00 (.197)
4	22-01-1042	10.50 (.413)	7.50 (.295)
5	22-01-1052	13.00 (.512)	10.00 (.394)
6	22-01-1062	15.50 (.611)	12.50 (.492)
7	22-01-1072	18.00 (.709)	15.00 (.591)
8	22-01-1082	20.50 (.807)	17.50 (.689)
9	22-01-1092	23.00 (.906)	20.00 (.787)
10	22-01-1102	25.50 (1.004)	22.50 (.886)
11	22-01-1112	28.00 (1.102)	25.00 (.984)
12	22-01-1122	30.50 (1.201)	27.50 (1.083)
13	22-01-1132	33.00 (1.299)	30.00 (1.181)
14	22-01-1142	35.50 (1.398)	32.50 (1.280)
15	22-01-1152	38.00 (1.496)	35.00 (1.378)

PRODUCT SPECIFICATION

【1. SCOPE】

This specification covers the 2.5mm CENTER SPACING P.C. BOARD CONNECTOR series.

【2. PRODUCT NAME AND PART NUMBER】

Product Name	Part Number
Terminal	5159T,PBT
Housing	5051-N
Wafer Assembly (St.)	5045-NA
Wafer Assembly (R/A)	5046-NA

N: Refer to the drawing.

【3. RATINGS AND APPLICABLE WIRES】

Item	Standard	
Rated Voltage (MAX.)	250V	[AC (rms) / DC]
Rated Current (MAX.) and Applicable wires	AWG #22 3 A	Insulation O.D.: φ 1.2 ~ 1.7 mm
	AWG #24 2.5A	
	AWG #26 2 A	
	AWG #28 1.5A	
Ambient Temperature Range	-40°C ~ +105°C*	

* : Including terminal temperature rise.

【4. PERFORMANCE】

4-1. Electrical Performance:

Item	Test Condition		Requirement
4-1-1	Contact Resistance	Mate connectors measure by dry circuit, 20mV max., 10mA. (Based upon JIS C5402 5.4)	20m Ω MAX.
4-1-2	Insulation Resistance	Mate connectors, apply 500V DC between adjacent terminal or ground. (Based upon JIS C5402 5.2/MIL-STD-202 Method 302 Cond. B)	1000M Ω MIN.
4-1-3	Dielectric Strength	Mate connectors, apply 1000V AC for 1 minute between adjacent terminal or ground. (Based upon JIS C5402 5.1/ MIL-STD-202 Method 301)	No Breakdown
4-1-4	Contact Resistance on Crimped Portion	Crimp the applicable wire on to the terminal, measure by dry circuit, 20mV MAX., 10mA.	5m Ω MAX.

REV.0

5159•5051•5045/6

Document No. PS- 5051-003

4-2. Mechanical Performance:

Item		Test Condition	Requirement	
4-2-1	Insertion and Withdrawal Force	Insert and withdraw connectors at the speed rate of 25 ± 3 mm/minute.	Refer to paragraph 6	
4-2-2	Crimping Pull Out Force	Fix the crimped terminal, apply axial pull out force on the wire at the speed rate of 25 ± 3 mm/minute. (Based upon JIS C5402 6.8)	AWG #22	4.0 Kgf MIN.
			AWG #24	3.0 Kgf MIN.
			AWG #26	2.0 Kgf MIN.
			AWG #28	1.0 Kgf MIN.
4-2-3	Terminal Insertion Force	Insert the crimped terminal into the housing.	1.5 Kgf MAX.	
4-2-4	Terminal/Housing Retention Force	Apply axial pull out force at the speed rate of 25 ± 3 mm/minute on the terminal assembled in the housing.	1.5 Kgf MIN.	
4-2-5	Pin Retention Force	Apply axial push force at the speed rate of 25 ± 3 mm/minute.	1.0 Kgf MIN.	

4-3. ENVIRONMENTAL PERFORMANCE AND OTHERS

Item		Test Condition	Requirement	
4-3-1	Repeated Insertion/Withdrawal	When mated up to 30 cycles repeatedly by the rate of 10 cycles per minute.	Contact Resistance	40mΩ MAX.
4-3-2	Temperature Rise	Carrying rated current load. (Based upon UL 498)		30°C MAX.
4-3-3	Vibration	Amplitude : 1.5mm P-P Sweep time: 10-55-10Hz in 1 minute Duration : 2 hours in each X.Y.Z. axes (Based upon MIL-STD-202 Method 201A)	Appearance	No Damage
			Contact Resistance	40mΩ MAX.
			Dis-continuity	1 μsec. MAX.
4-3-4	Shock	50G, 3 strokes in each X.Y.Z. axes. (Based upon JIS C0041/MIL-STD-202 Method 213B Cond. A)	Appearance	No Damage
			Contact Resistance	40mΩ MAX.
			Dis-continuity	1 μsec. MAX.

Item		Test Condition	Requirement	
4-3-5	Heat Resistance	105±2°C, 96 hours (Based upon JIS C0021/MIL-STD-202 Method 108A Cond.A)	Appearance	No Damage
			Contact Resistance	40mΩ MAX.
4-3-6	Cold Resistance	-40±3°C, 96 hours (Based upon JIS C0020)	Appearance	No Damage
			Contact Resistance	40mΩ MAX.
4-3-7	Humidity	Temperature : 60±2°C Relative Humidity: 90~95% Duration: 96 hours (Based upon JIS C0022/MIL-STD-202 Method 103B Cond.B)	Appearance	No Damage
			Contact Resistance	40mΩ MAX.
			Dielectric Strength	Must meet 4-1-3
			Insulation Resistance	100MΩ MIN.
4-3-8	Temperature Cycling	5 cycles: a) - 55°C 30 MIN. b) +105°C 30 MIN. (Based upon JIS C0025)	Appearance	No Damage
			Contact Resistance	40mΩ MAX.
4-3-9	Salt Spray	48 hours exposure to a salt spray from the 5% solution at 35°C.(Based upon JIS C5028/MIL-STD-202 Method 101D Cond. B)	Appearance	No Damage
			Contact Resistance	40mΩ MAX.
4-3-10	SO ₂ Gas	24 hours exposure to 50 ppm. SO ₂ gas at 40°C	Appearance	No Damage
			Contact Resistance	40mΩ MAX.
4-3-11	Solder-ability	Soldering Time: 3±0.5 sec Solder Temperature: 230±5°C	75% of immersed area must show no voids, pin holes	
4-3-12	Resistance to Soldering Heat	Soldering Time: 5±0.5 sec Solder Temperature: 260±5°C	No Damage	

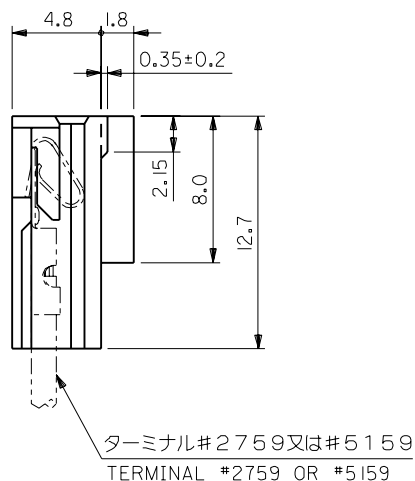
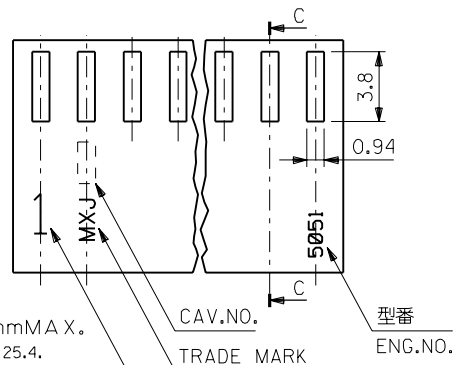
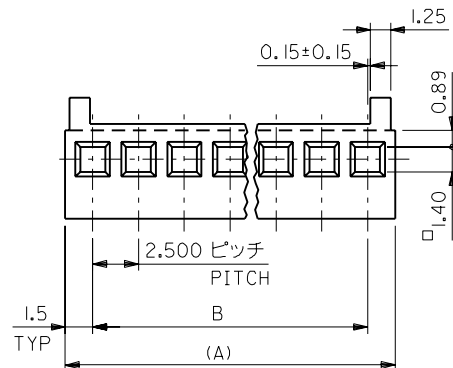
【5. PRODUCT SHAPE, DIMENSIONS AND MATERIALS】

Refer to the drawing.

【6. INSERTION/WITHDRAWAL FORCE】

(Unit : kgf)

CKT SIZE	Insertion (MAX.)			Withdrawal (MIN.)		
	Initial	6th	30th	Initial	6th	30th
2	3.6	3.4	3.4	0.65	0.55	0.55
3	4.4	4.1	4.1	0.70	0.60	0.60
4	5.2	4.8	4.8	0.75	0.65	0.65
5	6.0	5.5	5.5	0.80	0.70	0.70
6	6.6	6.0	6.0	0.90	0.80	0.80
7	7.2	6.5	6.5	1.00	0.90	0.90
8	7.8	7.0	7.0	1.15	1.00	1.00
9	8.4	7.5	7.5	1.30	1.15	1.15
10	9.0	8.0	8.0	1.45	1.30	1.30
11	9.6	8.5	8.5	1.60	1.45	1.45
12	10.2	9.0	9.0	1.85	1.60	1.60
13	10.8	9.5	9.5	2.00	1.75	1.75
14	11.4	10.0	10.0	2.15	1.90	1.90
15	12.0	10.5	10.5	2.30	2.05	2.05
16	12.6	11.0	11.0	2.45	2.20	2.20
17	13.2	11.5	11.5	2.60	2.35	2.35
18	13.8	12.0	12.0	2.75	2.50	2.50
19	14.4	12.5	12.5	2.90	2.65	2.65
20	15.0	13.0	13.0	3.05	2.80	2.80



注)
NOTE.

1. そりは長さ25.4mmに対して0.2mmMAX X.
CAMBER MUST BE WITHIN 0.2 MAX. PER 25.4.

2. () 寸法は参考値
DIMENSION SHOWN IN () ARE REFERENCE.

3. サーキットNO. 1のみ表示 但し2極の場合は
MX-Jマーク側が1となる
WHEN 2 CIRCUITS HOUSING TRADE MARK SIDE IN NO.1 CIRCUIT.

MT'L, NYLON 66(94V-0)					
5051-20	22-01-1202	20	47.50±0.30	50.50	
▲	-19	▲ -1192	19	45.00±0.25	48.00
	-18	-1182	18	42.50±0.25	45.50
	-17	-1172	17	40.00±0.25	43.00
	-16	-1162	16	37.50±0.25	40.50
	-15	-1152	15	35.00±0.20	38.00
	-14	-1142	14	32.50±0.20	35.50
	-13	-1132	13	30.00±0.20	33.00
	-12	-1122	12	27.50±0.20	30.50
	-11	-1112	11	25.00±0.15	28.00
	-10	-1102	10	22.50±0.15	25.50
	-09	-1092	9	20.00±0.15	23.00
	-08	-1082	8	17.50±0.15	20.50
	-07	-1072	7	15.00±0.15	18.00
	-06	-1062	6	12.50±0.10	15.50
	-05	-1052	5	10.00±0.10	13.00
	-04	-1042	4	7.50±0.10	10.50
▼	-03	▼ -1032	3	5.00±0.10	8.00
5051-02	22-01-1022	2	2.50±0.08	5.50	
ENG. NO.	PART NO.	極致 N	B	(A)	

EC NO. DRAWN: CHK'N: APPR'Z:	EC NO. DRAWN: CHK'N: APPR'Z:	EC NO. DRAWN: CHK'N: APPR'Z:	EC NO. DRAWN: CHK'N: APPR'Z:	REDRAWN EC NO. JC2000-0629 DRAWN: K.KOHAMA '00/3/28 CHK'N: T.YAMAGUCHI '00/3/30 APPR'Z: M.FUKUSHIMA '00/3/30	DESCRIPTION FINISH 仕上り WIRE RANGE 適用電線範囲	MATERIAL 材料 表参照 SEE TABLE	GENERAL TOLERANCES: (UNLESS SPECIFIED) — 公差 — 10 UNDER 未満 10 OVER 以上 30 UNDER 未満 30 OVER 以上	SCALE 4:1 DESIGN UNITS ☒ mm ☐ INCH	THIRD ANGLE PROJECTION TITLE: 2.50/(.098) CENTERS KK. POLZG HSG.	☐ mm INCH ☐ INCH mm ONLY	REV REVISION CADD ONLY
EC NO. DRAWN: CHK'N: APPR'Z:	EC NO. DRAWN: CHK'N: APPR'Z:	EC NO. DRAWN: CHK'N: APPR'Z:	EC NO. DRAWN: CHK'N: APPR'Z:	REV INS. RANGE 被覆外径	ANGLE 角度	±3°	CAD FILENAME S505I.S01	MATERIAL NO. 505I-**-	DRAWING NO. SD-505I-N	SHEET NO. 1	SIZE B