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PRODUCT SPECIFICATION

GradConn Part No.:	BB02-PEXX1-KX8-000000 BB02-PGXX2-KX8-000000
Product Description.:	0.5mm Board to Board Connector, SMT Type, Male and Female Versions



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PRODUCT SPECIFICATION**1.Scope**

This specification covers the 0.5mm Board To Board 020 Type

2.Product name and part number

Product Name	Part Number
0.5mm Board To Board SMT Type	BB02-PEXX1-KX8-000000
	BB02-PGXX2-KX8-000000

3.Material/Finish

Name	Material	Finish	Color
Plastic	Nylon 46 (UL94V-0)		
Terminal	Phosphor Bronze	Gold Plated	
Shell			

*Refer to the drawing.

4.Rating

Item	Standard	
Rated Voltage (MAX.)	50 V	AC/DC
Rated Current (MAX.)	0.5 A	
Ambient Temperature Range	-20°C~+105°C	

*1: Including terminal temperature rise.

5. Performance**5-1.Electrical Performance**

Item		Test Condition	Requirement
5-1-1	Contact Resistance	Mate connectors the 0.5mm Board To Board 020 Type and measure by dry circuit, 20mV MAX.10mA. (JIS C5402 5.4)	30 mΩ MAX
5-1-2	Insulation Resistance	Mate connectors the 0.5mm Board To Board 020 Type and apply 500V DC between adjacent terminal or ground. (JIS C5402 5.2/MIL-STD-202 Method 302)	100MΩ MIN
5-1-3	Dielectric Strength	Mate connectors the 0.5mm Board To Board 020 Type and apply 500V AC (rms) for 1 minute between adjacent terminal or ground. (JIS C5402 5.1/MIL-STD-202 Method 301)	No Breakdown

5-2 Mechanical Performance

Item		Test Condition		Requirement
5-2-1	Insertion and Withdrawal	Insert and withdraw connectors at the speed rate of 25±3mm/minute.	Insertion Force	Kgf/Pin(Max)



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	Force		Withdrawal Force	kgf/Pin(Min)
5-2-2	Terminal Retention Force	Apply axial pull out force at the speed rate of 25±3mm per minute.		0.2 kgf MIN

5-3. Environmental Performance and Others

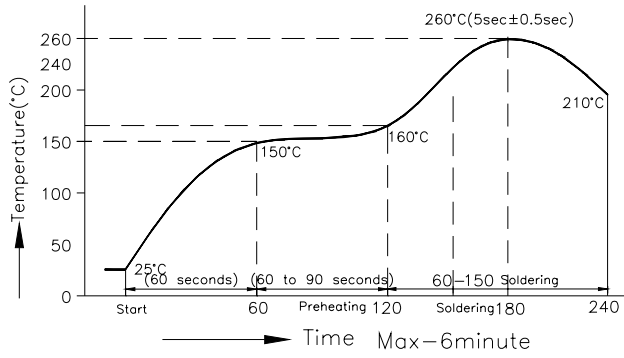
Item	Test Condition	Requirement	
5-3-1	Repeated Insertion and Withdrawal When mated up to 30 cycles repeatedly by the rate of 10 cycles per minute.	Contact Resistance	30 mΩ MAX
5-3-2	Temperature Rise Carrying rated current load. (UL 498)	Temperature rise	20 °C MAX
5-3-3	Vibration Amplitude:1.5mm P-P Sweep time:10-55-10 Hz In 1 minute Duration: 2 hours in each of X.Y.Z axes (MIL-STD-202 Method 201)	Appearance	No Damage
		Contact Resistance	30 mΩ MAX
		Discontinuity	1μsec. MAX
5-3-4	Shock 490m/S ² (50G),3 strokes in each X, Y, Z axes. (JIS C0041/MIL-STD-202 Method 213)	Appearance	No Damage
		Contact Resistance	30 mΩ MAX
		Discontinuity	1μsec. MAX.
5-3-5	Heat Resistance 85±2°C 96 hours (JIS C0021/MIL-STD-202 Method 108)	Appearance	No Damage
		Contact Resistance	30 mΩ MAX
5-3-6	Cold Resistance -25±3°C 96 hours (JIS C0020)	Appearance	No Damage
		Contact Resistance	30 mΩ MAX
5-3-7	Humidity Temperature: 60±2°C Relative Humidity:90~95% Duration: 96hours (JIS C0022/MIL-STD-202 Method 103)	Appearance	No Damage
		Contact Resistance	30 mΩ MAX
		Dielectric Strength	Must meet 4-1-3
		Insulation Resistance	100MΩ MIN
5-3-8	Temperature Cycling 5 cycles of: a)-55°C 30 minutes b)+105°C 30 minutes (JIS C0025)	Appearance	No Damage
		Contact Resistance	30 mΩ MAX
5-3-9	Salt Spray 12±4 hours exposure to a salt spray from the 5±1% solution at 35±2°C (JIS C0023/MIL-STD-202 Method 101)	Appearance	No Damage
		Contact Resistance	30 mΩ MAX
5-3-10	SO ₂ Gas 24 hours exposure to 50±5ppm. SO ₂ gas at 40±2°C	Appearance	No Damage
		Contact Resistance	30 mΩ MAX
5-3-11	NH ₃ Gas 40 minutes exposure to NH ₃ gas evaporating from 28% Ammonia solution	Appearance	No Damage
		Contact Resistance	30 mΩ MAX



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5-3-12	Solder-ability	Solder Time:5±0.5 sec. Solder Temperature:260±5°C	Solder Wetting	95% of immersed area must show no voids, pin holes
5-3-13	Resistance To Soldering Heat	Soldering Time:5±0.5 sec. Solder Temperature:260±5°C	Appearance	No Damage
5-3-14	Soldering Profile 5-3-14-1 Manual soldering 5-3-14-2 IR Reflowg	Solder temp: 400±5°C Time: 5± 3 sec Soldering temp : 260 ± 5°C Soldering time : 5 ± 0.5 s Preheating : 150 ± 10°C for 1 to 2 min.	Supplier to provide measured data into the Table 1.	



Nylon 46 Recommended Temperature Profile



Stanyl

Datasheet TE250F6 - 00001

30% GF reinforced, flame retardant, heat stabilized, grade with good strength and toughness for E/E applications

Typical properties

	Unit	ISO/IEC	DIN	Grade TE250F6
General properties				
Density	g/cm ³	ISO 1183	53479	1,68
Melting temperature	°C	ISO 3146		295
Temperature properties				
HDT-A (1.8 MPa)	°C	ISO 75-1	53461	290
Peak temperature (1min.)	°C	UL 746B		-
Continuous use temperature	°C	IEC 60216		163
- 5000 hrs				
Coeff. linear thermal expansion	E-4/K	DIN 53752		
- // (23-55°C)				0,2
- ⊥ (23-55°C)				0,8
Electrical properties				
RTI electrical	°C,mm	UL 746B		140 (0.75)
Insulation class	-	UL 1446		H
Flammability (at thickness)	class(mm)	UL 94		V-0 (0.35)
Comparative tracking index (CTI)	PLC	IEC 60112		2
Electric strength	kV/mm	IEC 60243-1		
- dry (23°C)				30
- con (23°C/50%RH)				20
Volume resistivity	Ohm.cm	IEC 60093		
- dry (23°C)				1E+15
- con (23°C/50%RH)				1E+10
Mechanical properties				
Izod impact strength (notched)	kJ/m ²	ISO 180-1A		
- dry (23°C)				10
- con (23°C/50%RH)				11
Tensile strength	MPa	ISO 527-1	53455	
- dry (23°C)				180
- con (23°C/50%RH)				125
Tensile Modulus	MPa	ISO 527-1	53457	
- dry (23°C)				12500
- con (23°C/50%RH)				8000
Strain at break	%	ISO 527-1	53455	
- dry (23°C)				2,5
- con (23°C/50%RH)				3,5
Dimensional properties				
Moulding shrinkage	%	DSM		
- //				0,4
- ⊥				1,1
Humidity absorption (equi. 23°C/50%RH)	%	ISO 62		1,6

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Engineering Plastics

9701/2.0

DSM ENGINEERING PLASTICS

試 験 成 績 書

INSPECTION CERTIFICATE

日 鋳 金 属 加 工 株 式 会 社 倉 見 工 場
KURAMI WORKS, NIKKO METAL MANUFACTURING CO., LTD.

需要家 同朋中国
CUSTOMER

扱先 同朋香港 有限公司
MESSRS.

製品名 C5210R-EH (220-240)
PRODUCTS

寸法 0.2 X 305 X L
SIZE

規格
SPECIFICATION

化学成分
CHEMICAL COMPOSITIONS

発行日 2005年08月22日 0011
DATE OF ISSUE

納品書番号 04699-02
DELIVERY SHEET NO.

注文番号 NK5-0705
CONTRACT NO.

オーダー番号 07
ORDER NO.

品質保証課長
MANAGER OF QUALITY
ASSURANCE SECTION

Hiromichi Watanabe

規 格 SPECIFICATION		Zn %	Sn %	P %	Fe %	Pb %	Cu+Sn+P %														質 量 MASS (KG)
製造番号	MIN		7.0	0.05			99.7														
LOT NO.	MAX	0.20	9.0	0.26	0.05	0.01															1,359.10
		0.00	7.65	0.12	0.001	0.001	99.97														

機 械 的 お よ び 物 理 的 性 質
MECHANICAL AND PHYSICAL PROPERTIES

規 格 SPECIFICATION		引張強さ TENSILE STRENGTH N/mm ²	伸 び ELONGATION %	硬 さ HARDNESS HV	バネ限界値 ELASTIC LIMIT N/mm ²																寸法検査 DIMENSIONAL INSPECTIONS	GOOD
製造番号	MIN	685	11.0	220	460																	
LOT NO.	MAX	785		240																		
		720	23.6	236	613																	

外観検査
SURFACE
INSPECTIONS

備考
REMARKS.

この製品は品質管理計画に基づき製造され、検査・試験を行ない、規格に合格したことを証明する。
WE HEREBY CERTIFY THAT THE PRODUCTS DESCRIBED HEREIN HAVE BEEN MANUFACTURED, INSPECTED AND TESTED IN ACCORDANCE WITH THE SPECIFICATION AND Q.C. PROGRAM.

MEAN TOP COAT (Au=Gold) = 3.08
 STD, DEVIATION = 0.25
 NO. LF HEAS. = 10

MEAN INT COAT (Nickel) = 57.36
 STD, DEVIATION = 4.13
 NO. LF HEAS. = 10

T meas = 10 s

LOCATE SPECIMEN
 TO MEASURE **PRESS "GO"**
 Xt1= Xt2=

THICKNESS MEASUREMENT

		Gold	Nickel
N=	1	THICKNESS= 3.05	= 55.3
N=	2	THICKNESS= 3.02	= 56.9
N=	3	THICKNESS= 3.04	= 58.9
N=	4	THICKNESS= 3.06	= 52.5
N=	5	THICKNESS= 3.02	= 53.8
N=	6	THICKNESS= 3.12	= 56.3
N=	7	THICKNESS= 3.15	= 58.2
N=	8	THICKNESS= 3.08	= 54.7
N=	9	THICKNESS= 3.05	= 56.4
N=	10	THICKNESS= 3.15	= 51.6