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ELECTRONICS

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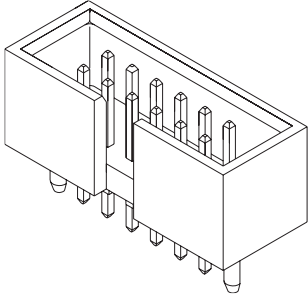
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Jameco Part Number 1302887

## 2.54mm (.100") Pitch C-Grid® Shrouded Header

### 87834

#### Dual Row, Low Profile, Vertical



#### Features and Benefits

- Sizes 4 to 50 circuits
- Low profile
- Polarized slot
- Fully shrouded to protect pins during mating
- In-line or alternate polarization pegs options

#### Reference Information

Product Specification: PS-70246-100  
Mates With: .050" pitch ribbon cable connectors  
Designed In: Inches

#### Electrical

Voltage: 250V AC max.  
Current: 2.5A  
Dielectric Withstanding Voltage: 600V AC/1 min.  
Insulation Resistance: 12,000 Megohms min.

#### Mechanical

Contact Retention: 0.907kg (2 lb) min.  
Pin Push-Out Force: 0.907kg (2 lb) min.

#### Physical

Housing: Beige glass-filled 4/6 nylon, UL 94V-0  
Contact: Copper Alloy  
Plating: Gold on contacts and Tin on solder tails  
Operating Temperature: -55 to +120°C

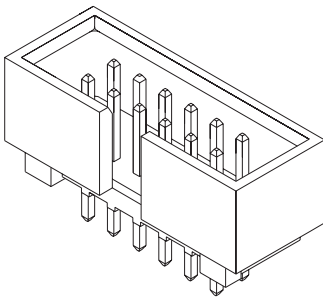
Circuits	Order No.	Lead-free
4	<a href="#">87834-0411</a>	Yes
6	<a href="#">87834-0611</a>	
8	<a href="#">87834-0811</a>	
10	<a href="#">87834-1011</a>	
12	<a href="#">87834-1211</a>	
14	<a href="#">87834-1411</a>	
16	<a href="#">87834-1611</a>	
18	<a href="#">87834-1811</a>	

Circuits	Order No.	Lead-free
20	<a href="#">87834-2011</a>	Yes
24	<a href="#">87834-2411</a>	
26	<a href="#">87834-2611</a>	
30	<a href="#">87834-3011</a>	
34	<a href="#">87834-3411</a>	
40	<a href="#">87834-4011</a>	
44	<a href="#">87834-4411</a>	
50	<a href="#">87834-5011</a>	

## 2.54mm (.100") Pitch C-Grid® Shrouded Header

### 70246

#### Dual Row, Low Profile, Vertical



#### Features and Benefits

- Sizes 8 to 64 circuits
- Polarized slot
- Low profile
- High temperature material version available, contact Molex

#### Reference Information

Product Specification: PS-70246-100  
UL File No.: E29179 (H)  
CSA File No.: LR19980A  
Mates With: .050" pitch ribbon cable connectors  
Designed In: Inches

#### Electrical

Voltage: 250V  
Current: 2.5A DC min.  
Contact Resistance: 15 milliohms max.  
Dielectric Withstanding Voltage: 1500V  
Insulation Resistance: 1000 Megohms min.

#### Mechanical

Contact Retention to Housing: 17.79N (4 lb)  
Durability: 50 cycles Gold

#### Physical

Housing: Black PBT, UL 94V-0  
Contact: Phosphor Bronze  
Plating: See Table  
Operating Temperature: -55 to +120°C

#### Not For Use With C-Grid III™ Components

Circuits	Order No.		Lead-free
	15µ" Gold	30µ" Gold	
8	<a href="#">70246-0801</a>	<a href="#">70246-0802</a>	Yes
10	<a href="#">70246-1001</a>	<a href="#">70246-1002</a>	
12	<a href="#">70246-1201</a>	<a href="#">70246-1202</a>	
14	<a href="#">70246-1401</a>	<a href="#">70246-1402</a>	
16	<a href="#">70246-1601</a>	<a href="#">70246-1602</a>	
20	<a href="#">70246-2001</a>	<a href="#">70246-2002</a>	
24	<a href="#">70246-2401</a>	<a href="#">70246-2402</a>	
26	<a href="#">70246-2601</a>	<a href="#">70246-2602</a>	

Circuits	Order No.		Lead-free
	15µ" Gold	30µ" Gold	
30	<a href="#">70246-3001</a>	<a href="#">70246-3002</a>	Yes
34	<a href="#">70246-3401</a>	<a href="#">70246-3402</a>	
40	<a href="#">70246-4001</a>	<a href="#">70246-4002</a>	
44	<a href="#">70246-4401</a>	<a href="#">70246-4402</a>	
50	<a href="#">70246-5001</a>	<a href="#">70246-5002</a>	
56	<a href="#">70246-5601</a>	<a href="#">70246-5602</a>	
60	<a href="#">70246-6001</a>	<a href="#">70246-6002</a>	
64	<a href="#">70246-6401</a>	<a href="#">70246-6402</a>	





# PRODUCT SPECIFICATION

## 5.0 PERFORMANCE

### 5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	<b>Insulation Resistance</b>	Measurements taken between adjacent contacts where 500VDC is applied. (MIL-STD-202F, Method 302)	<b>12000</b> Megaohms Minimum
2	<b>Dielectric Strength</b>	Mated samples subjected to 900 VAC rms for 1 min. between adjacent contacts. (MIL-STD-202F, Method 301)	No breakdown
3	<b>Current Rating</b>	Steady state DC voltage source is supplied for 96 hours with a 30 degree C Max. temperature rise over ambient	2.5 amp (D.C.) Maximum

### 5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
4	<b>Contact Retention</b>	Apply axial load at a rate of 0.5 inch/ (12.7mm) minimum up to maximum required load. (MIL-STD-1344A, Method 2007.1)	2 lb / 0.91kgf (Minimum) Initial 0.88 lb / 0.40kgf (Minimum) After resistance to solder heat

REVISION: <b>H2</b>	ECR/ECN INFORMATION: EC No: <b>S2006-0380</b> DATE: <b>2005/09/23</b>	TITLE: <b>C-GRID SHROUDED WAFER</b>	SHEET No. <b>2 of 3</b>
DOCUMENT NUMBER: <b>PS-70246-100</b>	CREATED / REVISED BY: <b>YLQIAO 2005/09/23</b>	CHECKED BY: <b>BOKOK 2005/09/27</b>	APPROVED BY: <b>PTLIM 2005/09/27</b>



# PRODUCT SPECIFICATION

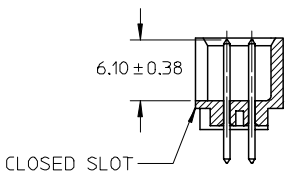
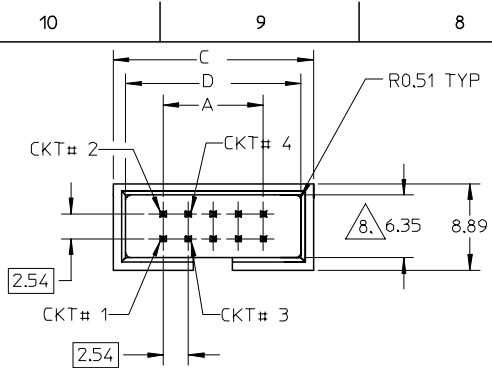
## 5.3 ENVIRONMENTAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
5	<b>Resistance to Soldering Heat (Wave Soldering)</b> For Series: 87256, 87257, 87834, 87835, 70246, 70247 87556	Sample mounted on PCB and subject to wave soldering as per MIL-STD-202G, method 210F, Condition B  For series using a) Nylon 4/6 plastic material Temperature : 260 ±5°C for 5sec b) PBT / PET plastic material Temperature : 230 ±5°C for 3sec	No damage in appearance of the connector
6	<b>Resistance to Soldering Heat (Reflow)</b> For Series: 71384, 87054	1. <u>Preheat</u> : Increase in temperature < 4°C /sec 2. <u>Soldering</u> : Maximum Reflow temperature < 230°C 3. <u>Cool Down</u> : Cool temperature < 4°C /sec	No damage in appearance of the connector
7	<b>Solderability</b>	Solder tail to be dipped in flux as per MIL-STD-202F, method 208	Soldertail should have 95% continuous new solder coating coverage (Apply to non-kinked Soldertail only)

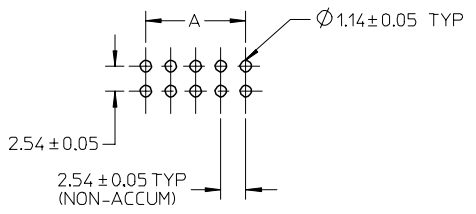
## 6.0 PACKAGING

Product shall be packaged and protected against damage during handling, transportation and storage.

REVISION: <b>H2</b>	ECR/ECN INFORMATION: EC No: <b>S2006-0380</b> DATE: <b>2005/09/23</b>	TITLE: <b>C-GRID SHROUDED WAFER</b>	SHEET No. <b>3 of 3</b>
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MOLEX IRELAND PRODUCTION ONLY  
(OPTION)



RECOMMENDED PCB HOLE LAYOUT

NOTES:

1. PIN PUSHOUT FORCE (.9072KG)/2LBS MIN.
2. PIN SOLDERABILITY PER MOLEX SPEC. ES-152.
3. PRODUCT SPEC: PS-70246 APPLIES.
4. WAFER TO BE FLAT WITHIN .003 MM/MM.
5. DIMENSIONS FOR PLATING LOCATION:
  - △5A MEASURE POINT FOR THICKNESS
  - △5B MINIMUM COVERAGE
6. GOLD END OF PIN UNLESS OVERALL PLATED.

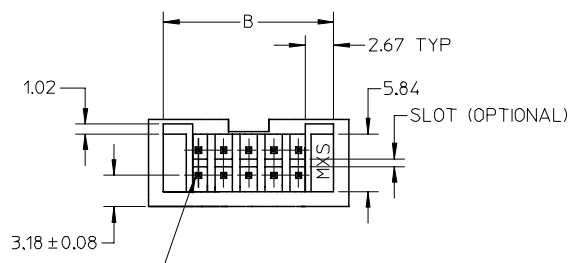
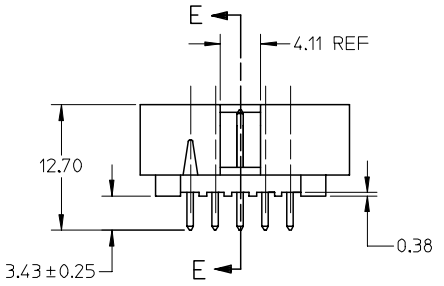
- 573 : 20 MICRO INCHES MIN GOLD PLATE ON CONTACT AND 100 MICRO INCHES MIN TIN PLATE ON SOLDER TAIL BOTH OVER 50 MICRO INCHES MIN NICKEL OVERALL.

△8. DIM AT THE CENTRE OF THE SHROUDED WALL SHALL BE 5.91MM MIN. THIS SPEC IS VALID FOR ALL CKT SIZE.

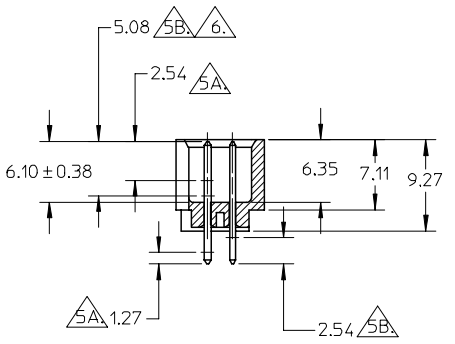
9. MATERIAL:  
HSG: GLASS FILLED PBT, UL94V-0, COLOUR BLACK  
PIN: 0.64MM SQ. PIN PHOSPHOR BRONZE.

7. FINISH:

- 571 : 15 MICRO INCHES MIN GOLD PLATE ON CONTACT AND 75 MICRO INCHES MIN TIN PLATE ON SOLDER TAIL BOTH OVER 50 MICRO INCHES MIN NICKEL OVERALL.
- 574 : 30 MICRO INCHES MIN GOLD PLATE ON CONTACT AND 75 MICRO INCHES MIN TIN PLATE ON SOLDER TAIL BOTH OVER 50 MICRO INCHES MIN NICKEL OVERALL.
- 544 : 5 MICRO INCHES MIN GOLD PLATE ON CONTACT AND 75 MICRO INCHES MIN TIN PLATE ON SOLDER TAIL BOTH OVER 50 MICRO INCHES MIN NICKEL OVERALL.



AT TIPS BOTH ENDS



SECTION E-E

OBS TIN/LEAD P/N EC NO: S2006-0952 DRWN:MLONG 2006/04/17 CHKD:WAGESHKH 2006/04/18 APPR:PTLIM 2006/04/21	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0	mm	MM ONLY	NTS	METRIC	
	△=0	INCH				

4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.20	± ---
1 PLACE	± ---	± ---
ANGULAR ± 3 °		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

DRAWN BY	DATE	TITLE
JENNIFER	1987/09/18	C-GRID, SHROUDED HEADER (SLOTTED W/O STANDOFFS)
CHECKED BY	DATE	
RWONG	1987/09/18	
APPROVED BY	DATE	
ALANB	1987/09/18	
MATERIAL NO.	DOCUMENT NO.	SHEET NO.
SEE TABLE	SDA-70246-**20-25,39-41	1 OF 2

MOLEX INCORPORATED	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	

	10	9	8	7	6	5	4	3	2	1	
	PART NUMBER	CKT SIZE	VOID CKT	DIM A	DIM B	DIM C	DIM D				
F	70246-08**	08	-	7.62	14.73	17.78	15.24				
	70246-10**	10	-	10.16	17.27	20.32	17.78				
	70246-12**	12	-	12.70	19.81	22.86	20.32				
	70246-14**	14	-	15.24	22.35	25.40	22.86				
	70246-16**	16	-	17.78	24.89	27.94	25.40				
	70246-20**	20	-	22.86	29.97	33.02	30.48				
	70246-24**	24	-	27.94	35.05	38.10	35.56				
	70246-26**	26	-	30.48	37.59	40.64	38.10				
E	70246-30**	30	-	35.56	42.67	45.72	43.18				
	70246-34**	34	-	40.64	47.75	50.80	48.26				
	70246-40**	40	-	48.26	55.37	58.42	55.88				
	70246-44**	44	-	53.34	60.45	63.50	60.96				
	70246-50**	50	-	60.96	68.07	71.12	68.58				
	70246-56**	56	-	68.58	75.69	78.74	76.20				
	70246-60**	60	-	73.66	80.77	83.82	81.28				
	70246-64**	64	-	78.74	85.85	88.90	86.36				
D	70246-72**	72	-	88.90	96.01	99.06	96.52				
	70246-25**	26	26	30.48	37.59	40.64	38.10				

LEGEND:  
A-70246 - \* \* \* \* \*  
CKT SIZE ————  
PLATING OPT. ————  
SEE TABLE FOR DETAIL

△ PART NUMBER	PLATING OPTION
70246-**01	571
70246-**02	574
70246-**04	544
70246-**12	573

F  
E  
D  
C  
B  
A

F  
E  
D  
C  
B  
A

OBS TIN/LEAD P/N EC NO: S2006-0952 DRWN:MLONG 2006/04/17 CHKD:WAGESHKN 2006/04/18 APPR:PTLIM 2006/04/21	REV J	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
		▽=0 ∇=0	mm INCH	MM ONLY	NTS	METRIC	
			4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± ---	DRAWN BY DATE JENNIFER 1987/09/18 CHECKED BY DATE RWONG 1987/09/18 APPROVED BY DATE ALANB 1987/09/18	TITLE C-GRID, SHROUDED HEADER (SLOTTED W/O STANDOFFS)		
			ANGULAR ± 3 °	MATERIAL NO. SEE TABLE	DOCUMENT NO. SDA-70246-**20-25,39-41	SHEET NO. 2 OF 2	
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		