



NRZ  
28  
Gbps

(0.80 mm) .0315" PITCH • QTE/QSE SERIES



**QTE**  
Board Mates:  
QSE

**QSE**  
Board Mates:  
QTE

**QTE/QSE**  
Cable Mates:  
EQCD, EQDP

**Standoffs:**  
SO

| QTE | PINS PER ROW<br>NO. OF PAIRS                            | LEAD<br>STYLE                             | PLATING<br>OPTION                                                                                                                                                                                                                                                          | TYPE                                                                          | A | OTHER<br>OPTIONS                                                                                                                                  | "X"R                                                                                                                                                                                                                                                                                                      |
|-----|---------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | -020,<br>-040, -060<br>(40 total pins per<br>bank = -D) | Specify<br>LEAD<br>STYLE<br>from<br>Chart | -F<br>= Gold flash<br>on contact,<br>Matte Tin on tail<br><br>-L<br>= 10 μ" (0.25 μm)<br>Gold on contact,<br>Matte Tin on tail<br><br>-C<br>= 50 μ" (1.27 μm)<br>Electro-Polished<br>Selective Gold<br>on contact,<br>Matte Tin on tail<br>(passes 10 year<br>MFG testing) | -D<br>= Single-<br>Ended<br><br>-D-DP<br>= Differential<br>Pair<br>(-01 only) |   | -K<br>= (7.00 mm)<br>.275" DIA<br>Polyimide<br>film Pick &<br>Place Pad<br><br>-L<br>= Latching<br>Option<br>(N/A on<br>-042 & -060<br>positions) | Leave blank for<br>Tray<br>Packaging<br><br>-TR<br>= Tape & Reel<br>(Not available<br>with -05 & -07<br>lead style)<br><br>-FR<br>= Full Reel<br>Tape & Reel<br>(must order<br>max. quantity<br>per reel;<br>contact Samtec<br>for quantity<br>breaks)<br>(Not available<br>with -05 & -07<br>lead style) |

## SPECIFICATIONS

### Insulator Material:

Liquid Crystal Polymer

### Contact Material:

Phosphor Bronze

### Plating:

Au or Sn over  
50 μ" (1.27 μm) Ni

### Operating Temp Range:

-55 °C to +125 °C

### Current Rating:

Contact:

2 A per pin (2 pins powered)

Ground Plane:

23 A per ground plane  
(1 ground plane powered)

### Voltage Rating:

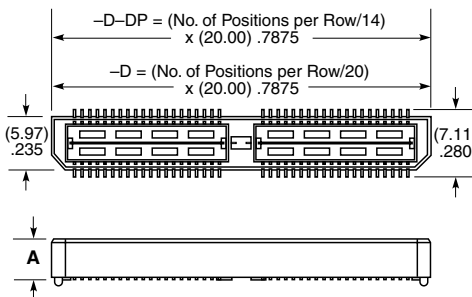
225 VAC/318 VDC

### Max Cycles:

100

| QTE<br>LEAD<br>STYLE | A            | HEIGHT<br>WITH QSE* |
|----------------------|--------------|---------------------|
| -01                  | (4.27) .168  | (5.00) .197         |
| -02                  | (7.26) .286  | (8.00) .315         |
| -03                  | (10.27) .404 | (11.00) .433        |
| -04                  | (15.25) .600 | (16.00) .630        |
| -05                  | (18.26) .718 | (19.00) .748        |
| -07                  | (24.24) .954 | (25.00) .984        |
| -09                  | (13.26) .522 | (14.00) .551        |

\*Processing conditions will affect mated height. See SO Series for board space tolerances.



## PROCESSING

### Lead-Free Solderable:

Yes

### SMT Lead Coplanarity:

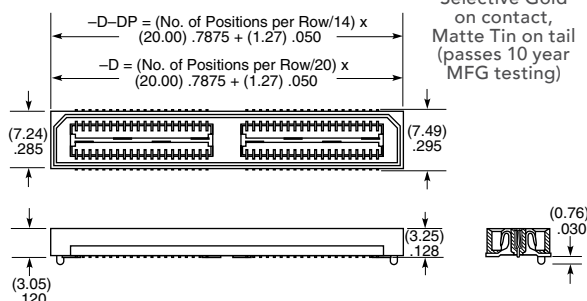
(0.10 mm) .004" max  
(020-060)

### Board Stacking:

For applications requiring  
more than two connectors  
contact ipg@samtec.com

View complete specifications at: [samtec.com?QTE](http://samtec.com?QTE)

| QSE | PINS PER ROW<br>NO. OF PAIRS                                                                                         | 01 | PLATING<br>OPTION                                                                                                                                                                                                                                                          | TYPE                                                            | A | OTHER<br>OPTIONS                                                                                                                                                                       | "X"R                                                                                                                                                                                                                                                                |
|-----|----------------------------------------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | -020,<br>-040, -060<br>(40 total pins per<br>bank = -D)<br><br>-014,<br>-028, -042<br>(14 pairs per bank<br>= -D-DP) |    | -F<br>= Gold flash<br>on contact,<br>Matte Tin on tail<br><br>-L<br>= 10 μ" (0.25 μm)<br>Gold on contact,<br>Matte Tin on tail<br><br>-C<br>= 50 μ" (1.27 μm)<br>Electro-Polished<br>Selective Gold<br>on contact,<br>Matte Tin on tail<br>(passes 10 year<br>MFG testing) | -D<br>= Single-<br>Ended<br><br>-D-DP<br>= Differential<br>Pair |   | -GP<br>= Guide Post<br><br>-K<br>= (8.25 mm)<br>.325" DIA<br>Polyimide Film<br>Pick &<br>Place Pad<br><br>-L<br>= Latching<br>Option<br>(Not available<br>on -042 & -060<br>positions) | Leave blank for<br>Tray<br>Packaging<br><br>-TR<br>= Tape & Reel<br>(40 positions<br>max. with -GP)<br><br>-FR<br>= Full Reel<br>Tape & Reel<br>(must order max.<br>quantity per reel;<br>contact Samtec for<br>quantity breaks)<br>(40 positions max.<br>with -GP) |



**Note:**  
Some lengths, styles and  
options are non-standard,  
non-returnable.

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