

10BASE-T NETWORK COMPONENTS

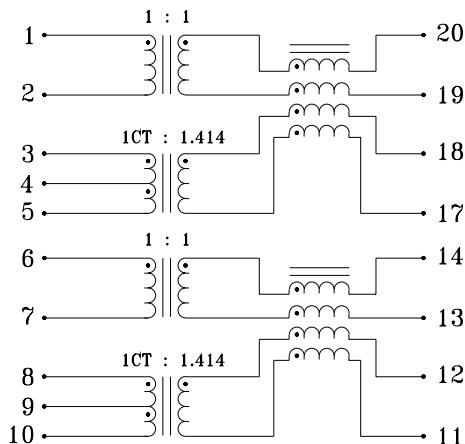
- Designed for use with Crystal Semiconductor C88904 10Base-T PHY transceiver
- Dual, 2-port and quad, 4-port designs to maximize cost and board space efficiencies
- Family of design options offered with common footprints and pinouts to offer optimized EMI suppression
- Low profile, surface mount packaging, rated to 225°C peak IR reflow temperature
- 2000 Vrms isolation

ELECTRICALS AT 25°C

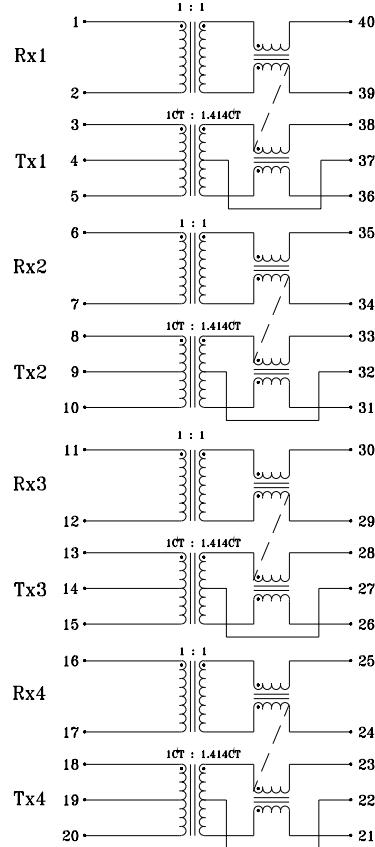
Part No.	Insertion Loss (dB) Max 1-10MHz	OCL (μ H) Min TX/RX	Return Loss (dB) Min 5MHz-10MHz	Crosstalk (dB) Min 1MHz-10MHz	CM-CM Rej (dB) Min 10-30MHz	CM-CM Rej (dB) Min 30-100MHz	Schematic	Package Style
S553-5841-14	-1.0	140/200	-15	-35	-40	-30	A	1
S553-5841-16	-1.0	140/200	-15	-35	-40	-30	B	2
S553-5841-28	-1.0	140/200	-15	-35	-40	-30	C	2
S553-5841-29	-1.0	140/200	-15	-35	--	--	D	2

SCHEMATICS

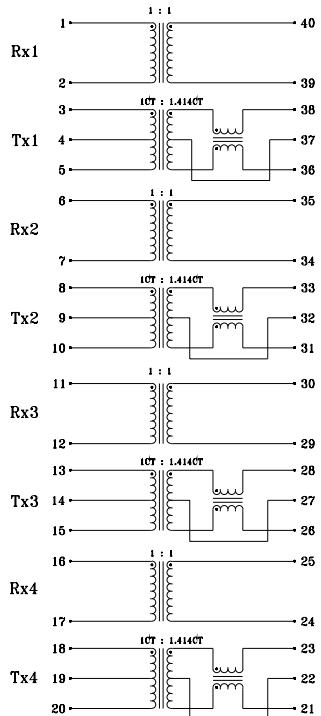
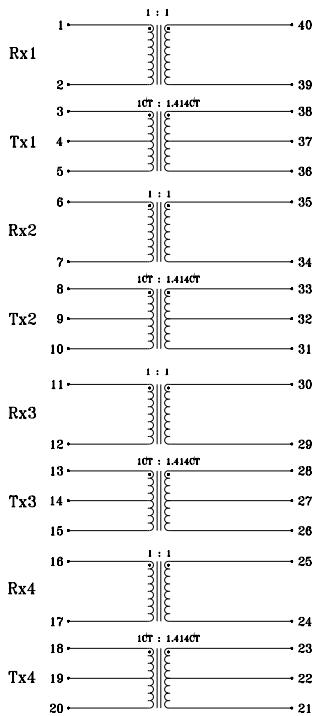
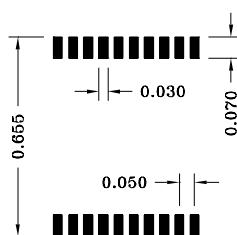
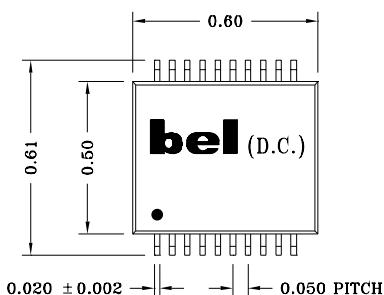
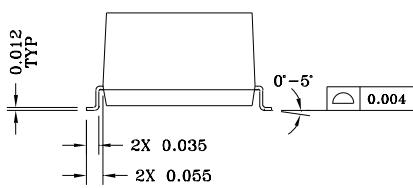
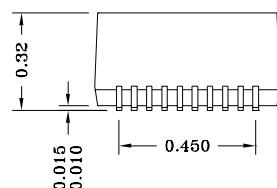
A



B



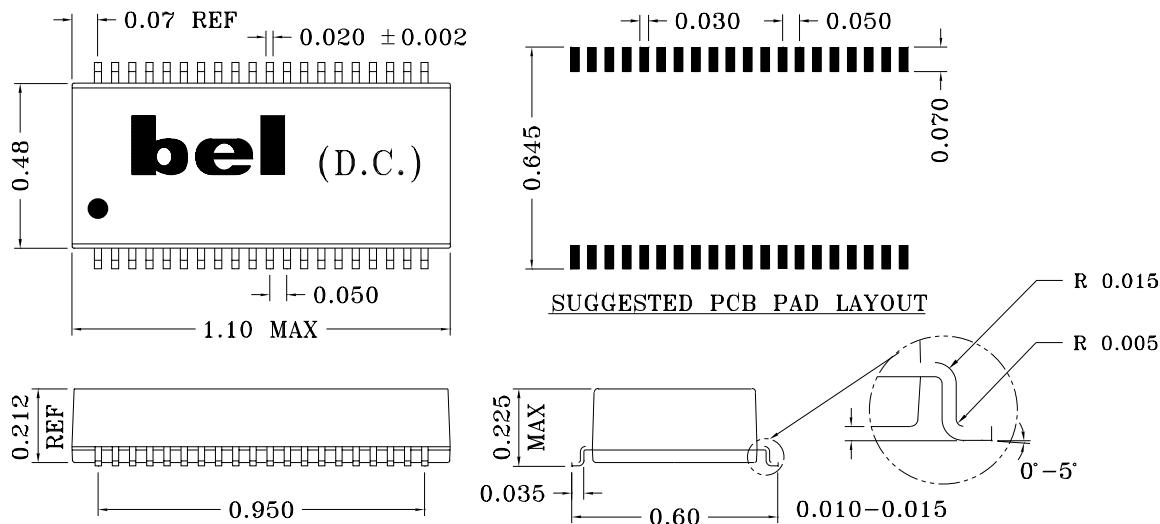
Specifications subject to change without notice.

10BASE-T NETWORK COMPONENTS
960059B
SCHEMATICS (CONT'D)
C

D

MECHANICALS
1

SUGGESTED PAD LAYOUT

Specifications subject to change without notice.

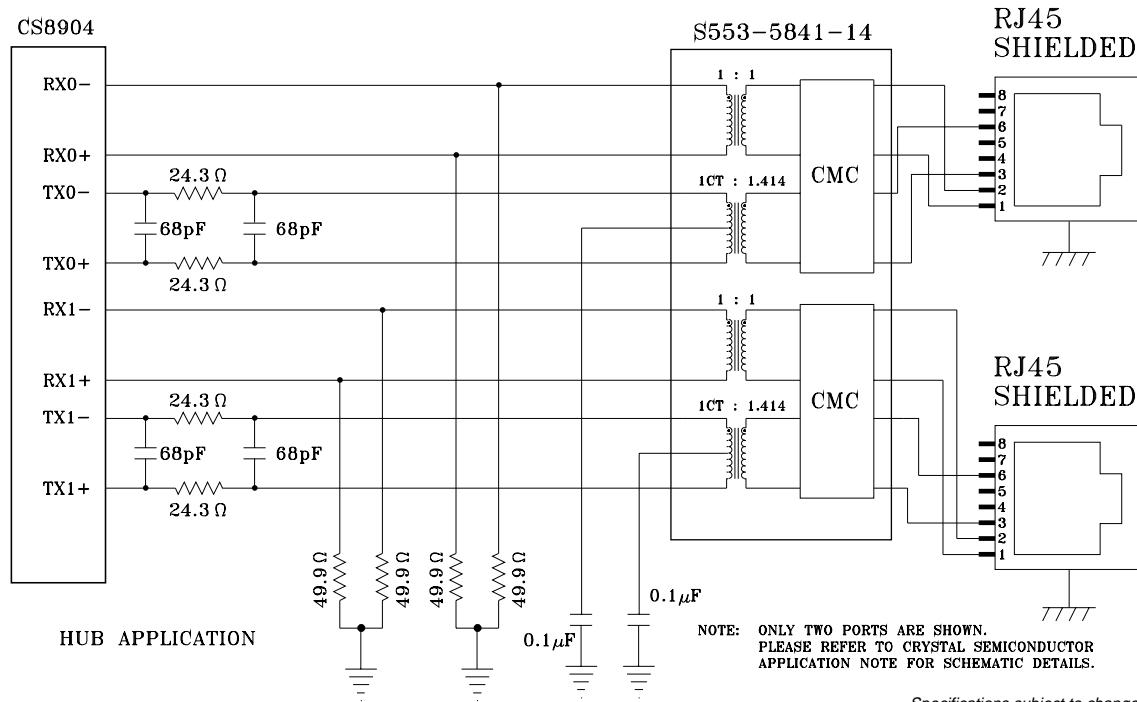
10BASE-T NETWORK COMPONENTS

MECHANICALS (CONT'D)

2



APPLICATION CIRCUIT



Specifications subject to change without notice.



defining a degree of excellence

960059B

10BASE-T NETWORK COMPONENTS

APPLICATION NOTES

- Bel has developed a variety of dual, 2-port and quad, 4-port part types for use with Crystal Semiconductor's product line of dual, 2-port and quad, 4-port PHY transceivers that incorporate digital filtering techniques within the silicon itself. Bel's "filterless magnetics" are optimized for this specific application and create a very cost efficient design solution. Each Bel part type contains transmit and receive transformers to provide for wave shaping, high voltage isolation and EMI noise suppression.
- Bel has designed these parts as a family of parts with common footprint and pinouts to enable the designer to customize the use of common mode choke for optimum system performance.
- In multi-port system applications, good PCB layout and proper grounding techniques are very critical to achieve FCC class A and B equipment approvals. Bel recommendations are available and can be provided by contacting our engineering department or your local sales representative.
- Bel's low profile, surface mount packaging is ideal for high speed pick and place machinery. Parts can be shipped on tape and reel for high speed placement. Construction processes have been implemented for thermal compatibility with high temperature IR reflow assembly processing. Post dipping of leads assist with PC board solderability. Each part is optically inspected to meet rigid coplanarity requirements.

Corporate Office

Bel Fuse Inc.
198 Van Vorst Street, Jersey City, NJ 07302-4496
Tel: 201-432-0463
Fax: 201-432-9542
E-Mail: BelFuse@belfuse.com
Internet: <http://www.belfuse.com>

Far East Office

Bel Fuse Ltd.
8F/8 Luk Hop Street
San Po Kong
Kowloon, Hong Kong
Tel: 852-2328-5515
Fax: 852-2352-3706

European Office

Bel Fuse Europe Ltd.
Preston Technology Management Centre
Marsh Lane, Preston PR1 8UD
Lancashire, U.K.
Tel: 44-1772-556601
Fax: 44-1772-888366