

# HIGH FREQUENCY MAGNETICS

## T1/E1 Single Through Hole Transformers

TM9913

- Operate as pulse transformers at DS1 and CEPT rates
- Perform impedance matching and voltage transformation for line transceivers
- Qualified per Bellcore TR-TSY-000357-1
- Compatible with water-soluble flux, total-immersion cleaning and machine insertion
- Meets IEC-695, 2-2 flammability requirements

### ELECTRICAL SPECIFICATIONS at 25° C

| Part Number | Turns Ratio<br>± 2% | Primary Inductance*<br>mH min | Leakage Inductance<br>μH max | DCR<br>Ω max |      | Interwinding Capacitance<br>pFmax | Interwinding Breakdown Voltage<br>Vrms min | Shielded Version |
|-------------|---------------------|-------------------------------|------------------------------|--------------|------|-----------------------------------|--|------------------|
|             | Pri : Sec           |                               |                              | Pri          | Sec  |                                   |  |                  |
| 2745AJ2     | 1 : 1.07 CT         | 1.0                           | 0.8                          | 0.50         | 1.00 | N/A                               | 850  | —                |
| 2745G3      | 1 : 1.14 CT         | 1.75                          | 1.3                          | 0.95         | 1.10 | 80                                | 1000                                       | 2745AK2          |
| 2745CA2     | 1 : 1.36 CT         | 0.92                          | 0.7                          | 0.85         | 1.2  | 20                                | 1000                                       | 2741H2           |
| 2745AF2     | 1 CT : 2 CT         | 3.15                          | 3.0                          | 1.55         | 3.15 | 23                                | 1000                                       | 2741G2           |

\* Measured at 10 kHz, 0.1 Vac

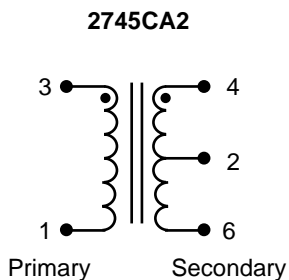
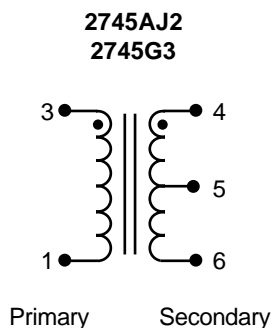
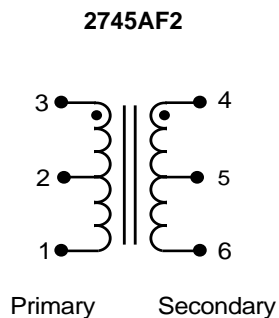
| Lucent IC<br>Part Number | Application             | Receive         | Transmit        |
|--------------------------|-------------------------|-----------------|-----------------|
|                          |                         | Bel Part Number | Bel Part Number |
| T7288                    | CEPT 75 / CEPT 120      | 2745AF2         | 2745CA2         |
| T7289A                   | DS1                     | 2745AF2         | 2745G3          |
| T7290A                   | DS1                     | 2745AF2         | 2745AJ2         |
|                          | T1 / CEPT 75 / CEPT 120 | 2745AF2         | 2745CA2         |
| T7630                    | DS1                     | 2745G3          | 2745G3          |
|                          | CEPT 75.1               | 2745AJ2         | 2745AJ2         |
|                          | CEPT 75.2 / CEPT 120    | 2745CA2         | 2745CA2         |
| T7688                    | CEPT 75.1               | 2745AJ2         | 2745AJ2         |
|                          | CEPT 75.2 / CEPT 120    | 2745CA2         | 2745CA2         |
| T7689                    | DS1                     | 2745G3          | 2745G3          |
| T7690<br>T7698           | DS1                     | 2745G3          | 2745G3          |
|                          | CEPT 75.1               | 2745AJ2         | 2745AJ2         |
|                          | CEPT 75.2 / CEPT 120    | 2745CA2         | 2745CA2         |

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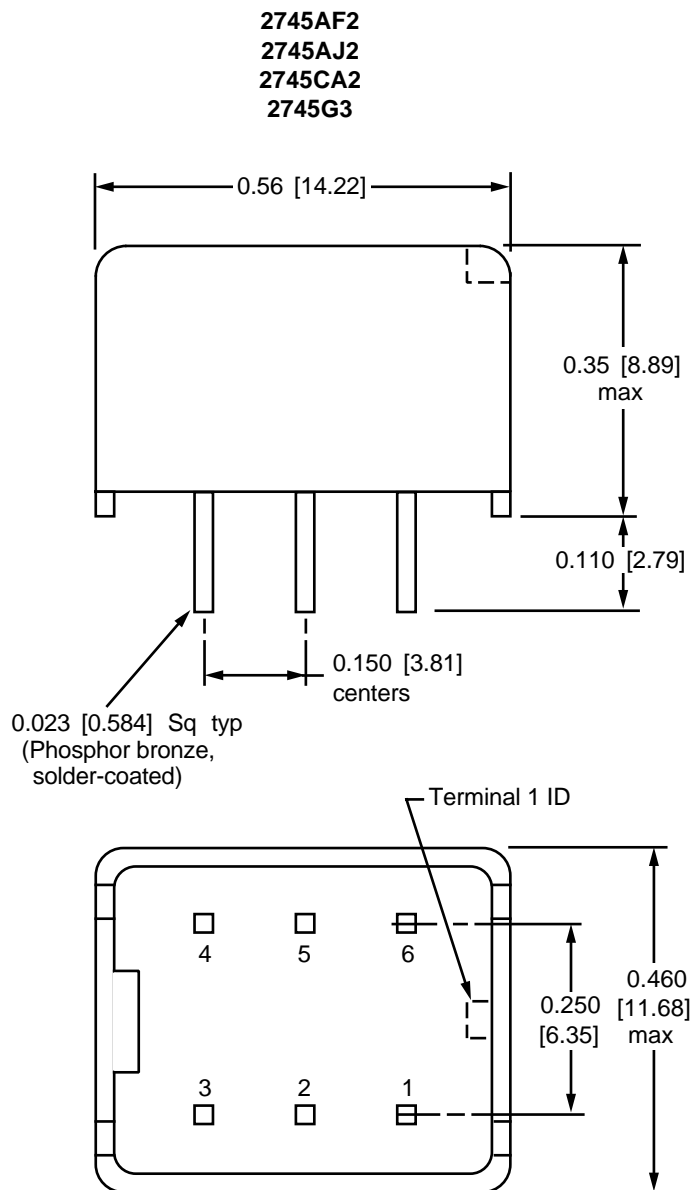
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#### SCHEMATICS



#### MECHANICAL



Note: Unless otherwise specified, dimensions are nominal and in inches [millimeters].

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