

## ADSL Magnetics

### EP-7 Surface-Mount Inductors



TM00329

- Designed with two well balanced and coupled windings for use in ADSL applications where filtering is required
- Operating temperature range: -40° C to +85° C
- Meets IEC 695, 2-2 flammability requirements
- PWB Process Capability: standard printed wiring board assembly techniques, total-immersion cleaning
- Reliability testing: shock, vibration, temperature cycling, temperature - humidity - bias

#### ELECTRICAL SPECIFICATIONS AT 25° C

| Part Number  | Inductance <sup>1</sup><br>μH<br>±5% | DCR<br>Ω<br>max |
|--------------|--------------------------------------|-----------------|
|              | (1-4)                                | (1-4)           |
| S560-6100-09 | 20.6                                 | 0.25            |
| S560-6100-10 | 73.6                                 | 0.5             |
| S560-6100-11 | 103.25                               | 0.5             |

1. measured at 0.1 Vac, 10 kHz

| Part Number  | Turns Ratio <sup>1</sup><br>± 1% | Inductance <sup>2</sup><br>μH<br>± 5% | Leakage Inductance <sup>3</sup><br>μH max | DCR<br>Ω<br>max |       | Direct Capacitance <sup>4</sup><br>pF max | Dielectric Rating<br>Vrms |
|--------------|----------------------------------|---------------------------------------|-------------------------------------------|-----------------|-------|-------------------------------------------|---------------------------|
|              | (1-5) : (2-4)                    | (1-5)                                 | (1-5)                                     | (1-5)           | (2-4) | (1-5) & (2-4)                             | (1-5) to (2-4)            |
| S560-6100-12 | 1 : 1                            | 88                                    | 5                                         | 0.65            | 0.65  | 100                                       | 1000                      |
| S560-6100-13 | 1 : 1                            | 99                                    | 5                                         | 0.7             | 0.7   | 100                                       | 1000                      |
| S560-6100-14 | 1 : 1                            | 120.5                                 | 5                                         | 0.55            | 0.55  | 100                                       | 1000                      |
| S560-6100-15 | 1 : 1                            | 129.5                                 | 5                                         | 0.55            | 0.55  | 100                                       | 1000                      |
| S560-6100-33 | 1 : 1                            | 2 mH                                  | 5                                         | 8.5             | 8.5   | -                                         | 1000                      |

1. measured at 20 kHz, 1 Vrms

2. measured at 0.1 Vac, 10 kHz

3. measured at 0.1 Vac, 100 kHz, short terminals 2 & 4

4. measured at 1 Vrms, 1 kHz

| Part Number  | Turns Ratio <sup>1</sup><br>± 1% | Inductance <sup>2</sup><br>mH |                    | DCR<br>Ω<br>max |       | Dielectric Rating<br>Vac      |
|--------------|----------------------------------|-------------------------------|--------------------|-----------------|-------|-------------------------------|
|              | (1-3) : (4-6)                    | (1-3)                         | (1-6) <sup>3</sup> | (1-3)           | (4-6) | between 1 & core <sup>4</sup> |
| S560-6100-24 | 1 : 1                            | 0.5                           | 2                  | 1.65            | 1.65  | 600                           |

1. measured at 20 kHz, 1 Vrms

2. measured at 10 kHz, 0.1 Vrms

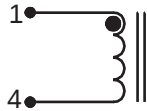
3. connect 3 to 4

4. connect 3 to 6

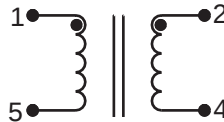
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#### SCHEMATIC

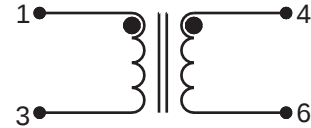
S560-6100-09  
S560-6100-10  
S560-6100-11



S560-6100-12  
S560-6100-13  
S506-6100-14  
S560-6100-15  
S560-6100-33

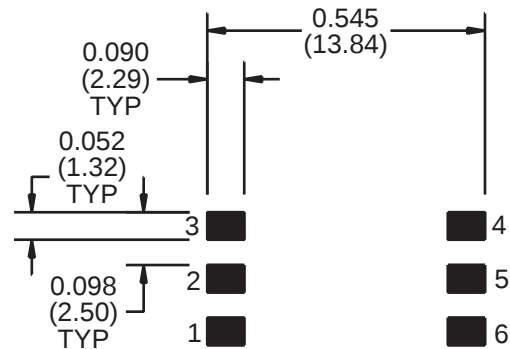
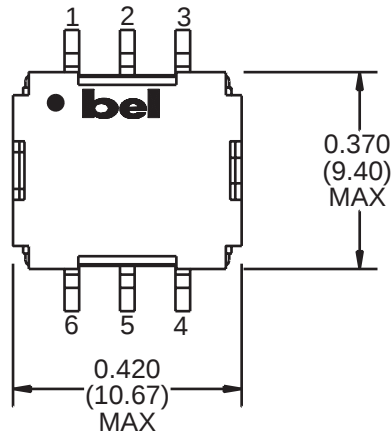


S560-6100-24

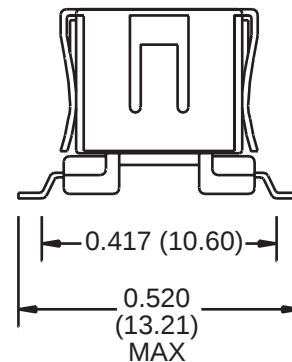
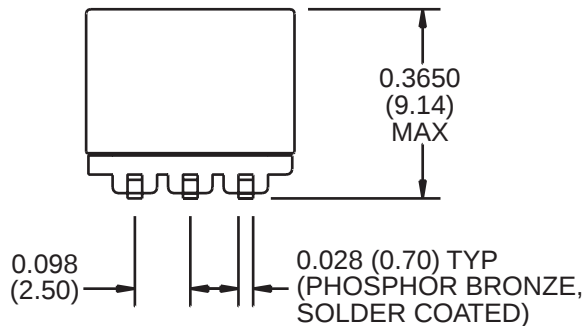


#### MECHANICAL

S560-6100-09  
S560-6100-10  
S560-6100-11  
S560-6100-12  
S560-6100-13  
S506-6100-14  
S560-6100-15  
S560-6100-24  
S560-6100-33



SUGGESTED PCB PAD LAYOUT



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#### CORPORATE

**Bel Fuse Inc.**  
198 Van Vorst Street  
Jersey City, NJ 07302  
Tel 201-432-0463  
Fax 201-432-9542  
www.belfuse.com

#### FAR EAST

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

#### EUROPE

**Bel Fuse Europe Ltd.**  
Preston Technology Management Centre  
Marsh Lane, Suite G7, Preston  
Lancashire, PR1 8UD, U.K.  
Tel 44-1772-556601  
Fax 44-1772-888366  
www.belfuse.com