

# ST / DST Series

# Split/Tran™ **Specialty Purpose & Class 2 Transformers**

### **Split Bobbin with High Isolation**

Signal's ST and DST transformers use a split bobbin that provides superior isolation and low capacitive coupling. Rigid pin construction for easier board insertion and higher reliability

### **General Specifications**

- Power 1.1 VA to 36 VA
- Dielectric Strength 2500 Vrms Hipot
- Primaries Single or dual primaries, 115 V or 115/230 V, 50/60 Hz
- Secondaries Series or parallel
- Electrostatic Shield Not necessary, split bobbin construction
- Insulation System Class B, 130° C
- Mounting Hardware see chart

### **Agency Certifications**

- UL 1446 Class B insulation systems, File # E66312
- UL Recognized 506 / UL 5085-1, 2, File # E63829
- CSA certified to C22.2 #66.1, File # 221070
- cCSAus certified to C22.2 #66.3 / UL 5085-3, File #221070
- Class 2 marked with (\*) or (\*\*) or (#)
- \*\* CSA certified as Inherently Limited
- CSA certified as Non Inherently Limited see recommended fuse rating
- # UL Recognized UL5085-3, Inherently Limited File # E116583











# ST / DST Series Datasheet

#### **Part Number Selection**

| Part                  | Number                  | Secondary RMS Rating  |                    |  |  |  |
|-----------------------|-------------------------|-----------------------|--------------------|--|--|--|
| Single 115 V<br>6 Pin | Dual 115/230 V<br>8 Pin | Series                | Parallel           |  |  |  |
| ST-2-10**             | DST-2-10**              | 10 VCT @ 0.11 A       | 5 V @ 0.22 A       |  |  |  |
| ST-3-10*              | DST-3-10*               | 10 VCT @ 0.25 A (5)   | 5 V @ 0.5 A (9)    |  |  |  |
| ST-4-10*              | DST-4-10*               | 10 VCT @ 0.6 A (9)    | 5 V @ 1.2 A (11)   |  |  |  |
| ST-5-10*              | DST-5-10*               | 10 VCT @ 1.2 A (11)   | 5 V @ 2.4 A (13)   |  |  |  |
| ST-6-10               | DST-6-10                | 10 VCT @ 2.0 A        | 5 V @ 4.0 A        |  |  |  |
| ST-7-10               | DST-7-10                | 10 VCT @ 3.6 A        | 5 V @ 7.2 A        |  |  |  |
| ST-2-12**             | DST-2-12**              | 12.6 VCT @ 0.09 A     | 6.3 V @ 0.18 A     |  |  |  |
| ST-3-12*              | DST-3-12*               | 12.6 VCT @ 0.2 A (4)  | 6.3 V @ 0.4 A (8)  |  |  |  |
| ST-4-12*              | DST-4-12*               | 12.6 VCT @ 0.5 A (9)  | 6.3 V @ 1.0 A (11) |  |  |  |
| ST-5-12*              | DST-5-12*               | 12.6 VCT @ 1.0 A (11) | 6.3 V @ 2.0 A (13) |  |  |  |
| ST-6-12               | DST-6-12                | 12.6 VCT @ 1.6 A      | 6.3 V @ 3.2 A      |  |  |  |
| ST-7-12               | DST-7-12                | 12.6 VCT @ 2.85 A     | 6.3 V @ 5.7 A      |  |  |  |
| ST-2-16**             | DST-2-16**              | 16 VCT @ 0.07 A       | 8 V @ 0.14 A       |  |  |  |
| ST-3-16*              | DST-3-16*               | 16 VCT @ 0.15 A (3)   | 8 V @ 0.3 A (6)    |  |  |  |
| ST-4-16*              | DST-4-16*#              | 16 VCT @ 0.4 A (7)    | 8 V @ 0.8 A (10)   |  |  |  |
| ST-5-16*              | DST-5-16*               | 16 VCT @ 0.8 A (10)   | 8 V @ 1.6 A (12)   |  |  |  |
| ST-6-16               | DST-6-16                | 16 VCT @ 1.25 A       | 8 V @ 2.5 A        |  |  |  |
| ST-7-16               | DST-7-16                | 16 VCT @ 2.25 A       | 8 V @ 4.5 A        |  |  |  |
| ST-2-20**             | DST-2-20**              | 20 VCT @ 0.055 A      | 10 V @ 0.11 A      |  |  |  |
| ST-3-20*              | DST-3-20*               | 20 VCT @ 0.12 A (2)   | 10 V @ 0.24 A (5)  |  |  |  |
| ST-4-20*              | DST-4-20*               | 20 VCT @ 0.3 A (6)    | 10 V @ 0.6 A (9)   |  |  |  |
| ST-5-20*              | DST-5-20*               | 20 VCT @ 0.6 A (9)    | 10 V @ 1.2 A (11)  |  |  |  |
| ST-6-20               | DST-6-20                | 20 VCT @ 1.0 A        | 10 V @ 2.0 A       |  |  |  |
| ST-7-20               | DST-7-20                | 20 VCT @ 1.8 A        | 10 V @ 3.6 A       |  |  |  |
| ST-2-24**             | DST-2-24**              | 24 VCT @ 0.045 A      | 12 V @ 0.09 A      |  |  |  |
| ST-3-24*              | DST-3-24*               | 24 VCT @ 0.1 A (1)    | 12 V @ 0.2 A (4)   |  |  |  |
| ST-4-24*              | DST-4-24*#              | 24 VCT @ 0.25 A (5)   | 12 V @ 0.5 A (9)   |  |  |  |
| ST-5-24*              | DST-5-24*#              | 24 VCT @ 0.5 A (9)    | 12 V @ 1.0 A (11)  |  |  |  |
| ST-6-24               | DST-6-24                | 24 VCT @ 0.8 A        | 12 V @ 1.6 A       |  |  |  |
| ST-7-24               | DST-7-24                | 24 VCT @ 1.5 A        | 12 V @ 3.0 A       |  |  |  |

| Part                  | Number                  | Secondary RMS Rating |                |  |  |  |
|-----------------------|-------------------------|----------------------|----------------|--|--|--|
| Single 115 V<br>6 Pin | Dual 115/230 V<br>8 Pin | Series               | Parallel       |  |  |  |
| ST-2-28               | DST-2-28                | 28 VCT @ 0.04 A      | 14 V @ 0.08 A  |  |  |  |
| ST-3-28               | DST-3-28                | 28 VCT @ 0.085 A     | 14 V @ 0.17 A  |  |  |  |
| ST-4-28               | DST-4-28                | 28 VCT @ 0.2 A       | 14 V @ 0.4 A   |  |  |  |
| ST-5-28               | DST-5-28                | 28 VCT @ 0.42 A      | 14 V @ 0.84 A  |  |  |  |
| ST-6-28               | DST-6-28                | 28 VCT @ 0.7 A       | 14 V @ 1.4 A   |  |  |  |
| ST-7-28               | DST-7-28                | 28 VCT @ 1.3 A       | 14 V @ 2.6 A   |  |  |  |
| ST-2-36               | DST-2-36                | 36 VCT @ 0.03 A      | 18 V @ 0.06 A  |  |  |  |
| ST-3-36               | DST-3-36                | 36 VCT @ 0.065 A     | 18 V @ 0.13 A  |  |  |  |
| ST-4-36               | DST-4-36                | 36 VCT @ 0.17 A      | 18 V @ 0.34 A  |  |  |  |
| ST-5-36               | DST-5-36                | 36 VCT @ 0.35 A      | 18 V @ 0.7 A   |  |  |  |
| ST-6-36               | DST-6-36                | 36 VCT @ 0.55 A      | 18 V @ 1.1 A   |  |  |  |
| ST-7-36               | DST-7-36                | 36 VCT @ 1.0 A       | 18 V @ 2.0 A   |  |  |  |
| ST-2-48               | DST-2-48                | 48 VCT @ 0.023 A     | 24 V @ 0.046 A |  |  |  |
| ST-3-48               | DST-3-48                | 48 VCT @ 0.05 A      | 24 V @ 0.1 A   |  |  |  |
| ST-4-48               | DST-4-48                | 48 VCT @ 0.125 A     | 24 V @ 0.25 A  |  |  |  |
| ST-5-48               | DST-5-48                | 48 VCT @ 0.25 A      | 24 V @ 0.5 A   |  |  |  |
| ST-6-48               | DST-6-48                | 48 VCT @ 0.4 A       | 24 V @ 0.8 A   |  |  |  |
| ST-7-48               | DST-7-48                | 48 VCT @ 0.75 A      | 24 V @ 1.5 A   |  |  |  |
| ST-2-56               | DST-2-56                | 56 VCT @ 0.02 A      | 28 V @ 0.04 A  |  |  |  |
| ST-3-56               | DST-3-56                | 56 VCT @ 0.045 A     | 28 V @ 0.09 A  |  |  |  |
| ST-4-56               | DST-4-56                | 56 VCT @ 0.11 A      | 28 V @ 0.22 A  |  |  |  |
| ST-5-56               | DST-5-56                | 56 VCT @ 0.22 A      | 28 V @ 0.44 A  |  |  |  |
| ST-6-56               | DST-6-56                | 56 VCT @ 0.35 A      | 28 V @ 0.7 A   |  |  |  |
| ST-7-56               | DST-7-56                | 56 VCT @ 0.65A       | 28 V @ 1.3 A   |  |  |  |
| ST-2-120              | DST-2-120               | 120 VCT @ 0.01 A     | 60 V @ 0.02 A  |  |  |  |
| ST-3-120              | DST-3-120               | 120 VCT @ 0.02 A     | 60 V @ 0.04 A  |  |  |  |
| ST-4-120              | DST-4-120               | 120 VCT @ 0.05 A     | 60 V @ 0.1 A   |  |  |  |
| ST-5-120              | DST-5-120               | 120 VCT @ 0.1 A      | 60 V @ 0.2 A   |  |  |  |
| ST-6-120              | DST-6-120               | 120 VCT @ 0.16 A     | 60 V @ 0.32 A  |  |  |  |
| ST-7-120              | DST-7-120               | 120 VCT @ 0.3 A      | 60 V @ 0.6 A   |  |  |  |

#### Recommended secondary fuse value specified as below:

| (1)     | (2)    | (3)    | (4)   | (5)     | (6)   | (7)   | (8)   | (9)    | (10)  | (11)  | (12)  | (13)  |
|---------|--------|--------|-------|---------|-------|-------|-------|--------|-------|-------|-------|-------|
| 0.125 A | 0.15 A | 0.25 A | 0.3 A | 0.375 A | 0.4 A | 0.5 A | 0.6 A | 0.75 A | 1.0 A | 1.5 A | 2.0 A | 3.0 A |

See Accessories datasheet for mounting screw information.













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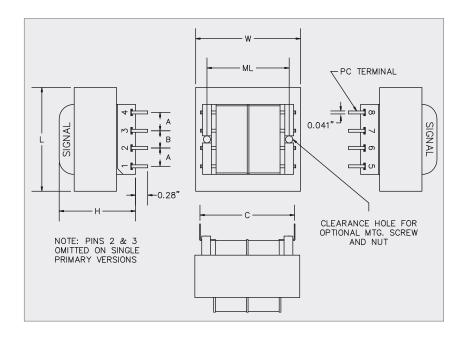


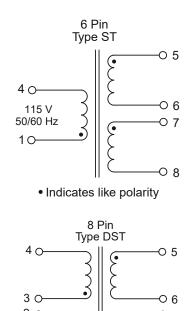
# ST / DST Series Datasheet

## **Mechanical Specifications**

| Size | VA  | L              | w              | н              | ML             | А           | В           | С              | Optional Mounting<br>Screw & Nut • | Weight      |  |
|------|-----|----------------|----------------|----------------|----------------|-------------|-------------|----------------|------------------------------------|-------------|--|
|      |     | Inches (mm)    |                |                |                |             |             |                |                                    |             |  |
| 2    | 1.1 | 1.37<br>(34.9) | 1.12<br>(28.6) | 0.97<br>(24.6) | -              | 0.25 (6.4)  | 0.25 (6.4)  | 1.20<br>(30.5) | -                                  | 0.17 (0.08) |  |
| 3    | 2.4 | 1.37<br>(34.9) | 1.12<br>(28.6) | 1.21<br>(30.8) | -              | 0.25 (6.4)  | 0.25 (6.4)  | 1.20<br>(30.5) | -                                  | 0.25 (0.11) |  |
| 4    | 6   | 1.62<br>(41.3) | 1.31<br>(33.3) | 1.31<br>(33.3) | 1.06<br>(26.9) | 0.25 (6.4)  | 0.35 (8.9)  | 1.25<br>(31.8) | Nylon<br>4-40 x 1.37(4-40 x 34.9)  | 0.44 (0.20) |  |
| 5    | 12  | 1.91<br>(48.4) | 1.59<br>(40.4) | 1.45<br>(36.9) | 1.25<br>(31.8) | 0.30 (7.6)  | 0.40 (10.2) | 1.41<br>(35.8) | Nylon<br>4-40 x 1.37 (4-40 x 34.9) | 0.70 (0.32) |  |
| 6    | 20  | 2.25<br>(57.2) | 1.88<br>(47.8) | 1.45<br>(36.9) | 1.50<br>(38.1) | 0.30 (7.6)  | 0.40 (10.2) | 1.60<br>(40.6) | Nylon<br>4-40 x 1.37 (4-40 x 34.9) | 0.80 (0.36) |  |
| 7    | 36  | 2.62<br>(66.7) | 2.18<br>(55.5) | 1.59<br>(40.4) | • •            | 0.40 (10.2) | 0.40 (10.2) | 1.85<br>(47.0) | • •                                | 1.1 (0.50)  |  |

- Available from Signal, part numbers ST-MS (screw) and ST-MN (nut).
- Size 7 has 4 mounting holes on 2.18 x 1.75 centers for #6 screws.
- \*\* Inherently Limited
- \* Non Inherently Limited

















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