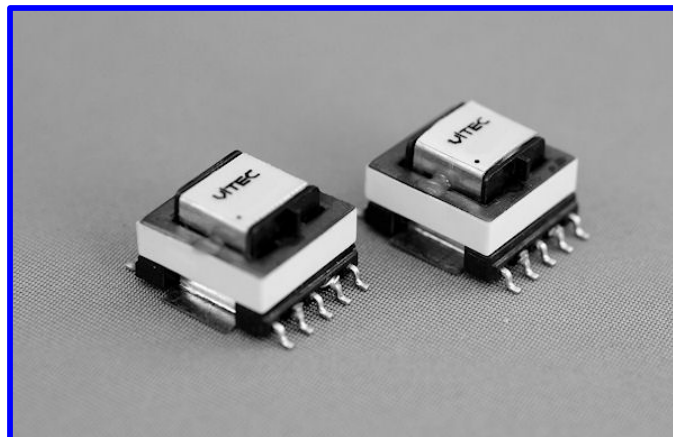


TYPE 57PR93

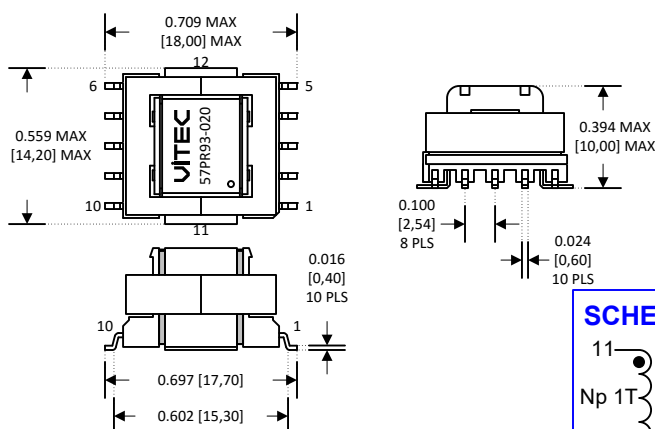
Current Sense Transformers

FEATURES

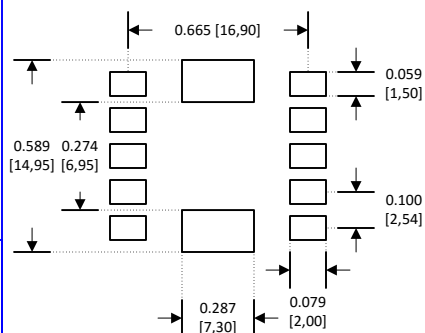
- Operating temperature from -40°C to 155°C.
- Manufactured to UL recognized 155°C insulation system.
- Materials meet flammability requirements for UL 94V-0.
- Frequency range from 50 KHz to 500 KHz.



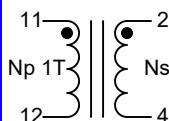
DRAWING



SUGGESTED PCB LAYOUT



SCHEMATIC



All dimensions given in inches [mm]. Tolerances unless otherwise specified. 0.XX ± 0.01 [0.XX ± 0.25] Angular ±1°

ELECTRICAL SPECIFICATIONS @ +25°C

| Part Number | Secondary Inductance ^(a) | Turns Ratio ^(b) | Primary DCR | Secondary DCR | Hipot (Pri-Sec) | Rated Current (Primary) |
|-------------|-------------------------------------|----------------------------|-------------|---------------|-----------------|-------------------------|
| | mH | Ns:Np | mOhm | Ohm | VRMS | A RMS |
| RoHS | ±30% | ±2% | MAX | MAX | 60 Hz 2 Sec | @ 40°C Trise |
| 57PR93-020 | 0.324 | 20:1 | 0.28 | 0.125 | 500 | 35 |
| 57PR93-030 | 0.729 | 30:1 | 0.28 | 0.195 | 500 | 35 |
| 57PR93-040 | 1.300 | 40:1 | 0.28 | 0.260 | 500 | 35 |
| 57PR93-050 | 2.030 | 50:1 | 0.28 | 0.325 | 500 | 35 |
| 57PR93-060 | 2.920 | 60:1 | 0.28 | 0.395 | 500 | 35 |
| 57PR93-070 | 3.970 | 70:1 | 0.28 | 0.580 | 500 | 35 |
| 57PR93-100 | 8.100 | 100:1 | 0.28 | 1.055 | 500 | 35 |
| 57PR93-125 | 12.660 | 125:1 | 0.28 | 2.025 | 500 | 35 |
| 57PR93-200 | 32.400 | 200:1 | 0.28 | 5.160 | 500 | 35 |

Notes: (a) Tested at 10 KHz, 0.1 VRMS.
(b) Tested at 10 KHz, 1 VRMS

To determine maximum operation parameters for unipolar current, use the following formulas:

1. Terminating resistor: $R_t = (N_s \times V_{ref}) / (N_p \times I_{ppk})$
2. Maximum flux density (Teslas): $B_{pk} = (V_{ref} \times DuCy_{max}) / (N_s \times 12.42E-06 \times Freq)$
Recommended $B_{pk_max} = 0.200$ T (2000 G)