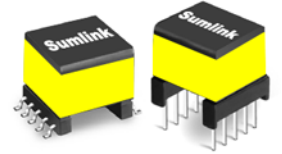


HDSL2/G.SHDSL TRANSFORMER

- Matched to Level One's SK70743, LXT772 and LXT776 chipsets



Electrical Specifications @ 25°C — Operating Temperature -40°C to +85°C

| Part Number | Mounting | Turns Ratio Chip - Line (±2%) | Inductance - Line Side @ 10 kHz, 100 mV | Leakage Inductance - Line Side @ 100 kHz, 0.02 Vrms | DC Resistance | |
|-------------|----------|-------------------------------|---|---|----------------------------|----------------------------|
| | | | | | Line Side | Chip Side |
| ST-S1056 | SMT | 1CT:3CS | 2.0 mH ±10% (1-5) with (2-4) shorted | 20 µH MAX (1-5) with (2-4) and (6,7,8,9) shorted | ≤ 2.05 Ω MAX (1-4) = (2-5) | ≤ 0.50 Ω MAX (1-4) = (2-5) |
| ST-S1083 | THT | 1:3CS | 2.25 mH ±10% (2-5) with (4-1) shorted | 8 µH MAX (2-5) with (4-1) and (10-6) shorted | ≤ 3.30 Ω MAX (2-4) = (1-5) | ≤ 0.75 Ω MAX (10-6) |

Additional Electrical Specifications

| Part Number | Longitudinal Balance | THD | Interwinding Capacitance (@ 100 kHz, 0.1 Vrms) | Return Loss | Isolation Voltage |
|-------------|------------------------------|-------------------------------|--|----------------------------------|-------------------|
| ST-S1056 | ≤ -45 dB (20 KHz to 400 KHz) | ≤ -70 dB (@ 10 kHz, 5.0 Vrms) | ≤ 60 pF | ≥ 16 dB (from 40 kHz to 300 kHz) | 1500 Vrms |
| ST-S1083 | ≤ -53 dB (10 KHz to 400 KHz) | ≤ -71 dB (@ 15 kHz, 3.8 Vrms) | Not Specified | ≥ 12 dB (from 50 kHz to 2 MHz) | 1500 Vrms |

- Matched to Virata's Aluminum. G.SHDSL chipset

Electrical Specifications @ 25°C — Operating Temperature -40°C to +85°C

| Part Number | Mounting | Turns Ratio Line - Chip (±2%) | Inductance - Line Side @ 10 kHz, 100 mV (9-6) with (8-7) shorted | Leakage Inductance @ 100 kHz, 0.1 Vrms (2-4) with (9,8,7,6) shorted | DC Resistance | |
|-------------|----------|-------------------------------|--|---|-------------------------|-----------------|
| | | | | | Line Side (9-8) = (7-6) | Chip Side (2-4) |
| ST-S1078 | SMT | 1CT:2CS | 4.0 mH ±10% | 8 µH MAX | ≤ 3.8 Ω | ≤ 3.6 Ω |

Additional Electrical Specifications

| Part Number | Longitudinal Balance (300 kHz) | THD (@ 50 kHz, 4 Vpp) | Return Loss (40 kHz - 300 kHz) | Isolation Voltage (Vrms) |
|-------------|--------------------------------|-----------------------|--------------------------------|--------------------------|
| ST-S1078 | ≤ -55 dB | ≤ -55 dB | ≥ 16.5 dB | 1500 |

Mechanicals

Schematics

THT

SMT

