

# VDSL TRANSFORMERS

## FEATURES

- For use with Broadcom's BCM6315 transceiver chip
- ST-S4020, ST-S4021 and ST-S4055: for use with Texas Instrument's TNETD800 chipset
- Excellent return loss and balance
- Surface mount or through hole package



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

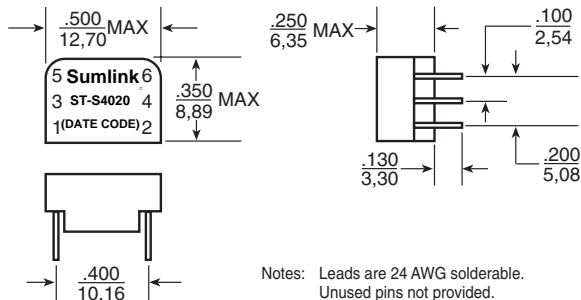
Part Number	Turns Ratio	Inductance (μH MIN)	Return Loss (dB MIN)	Insertion Loss (dB MAX)	Line Impedance (Ω)	Longitudinal Balance (dB TYP)	CM Rejection (dB TYP)	Isolation Voltage (Vrms)
ST-S4020 (THT)	1CT:1CT	190	300 kHz to 1 MHz: 18	200 kHz to 1 MHz: 0.8	100	200 kHz: 60	10 MHz: 35	3000
			1 MHz to 11 MHz: 20			11 MHz: 42	30 MHz: 33	
			11 MHz to 30 MHz: 16	100 MHz: 30		100 MHz: 25		
ST-S4055 (SMT)	1:1	190	300 kHz to 20 MHz: 20	200 kHz to 400 kHz: .75	100	200 kHz: 60	10 MHz: 35	1500
ST-S4021 (SMT)	1CT:1CT		20 MHz to 30 MHz: 18	400 kHz to 30 MHz: .50		11 MHz: 50	30 MHz: 33	
						100 MHz: 40	100 MHz: 30	
ST-S4056 (SMT)	1:1.16	190	300 kHz to 1 MHz: 15	200 kHz to 400 kHz: 0.75	135	200 kHz: 60	10 MHz: 35	1500
			1 MHz to 20 MHz: 20	400 kHz to 30 MHz: 0.60		11 MHz: 50	30 MHz: 33	
			20 MHz to 30 MHz: 17			100 MHz: 40	100 MHz: 30	

NOTES - Surge Voltage Capability: Metallic: 800 Vpeak 10/560 μsec. Long.: 2400 Vpeak 10/700 μsec.

## Mechanicals

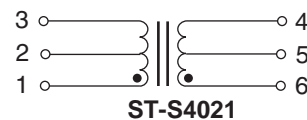
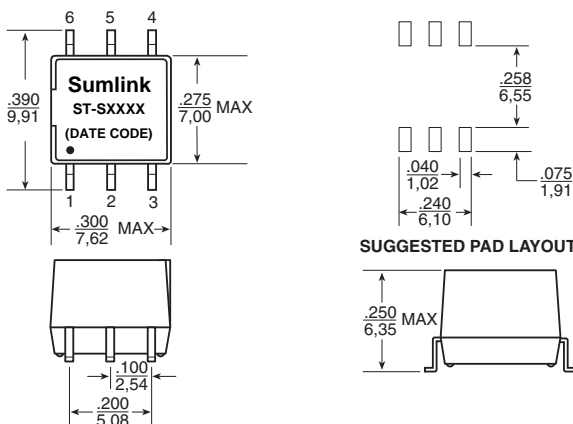
## Schematics

### ST-S4020



Dimensions: Inches  
mm  
Unless otherwise specified, all tolerances are ±  $\frac{.010}{0,25}$

### ST-S4021/ST-S4055/ST-S4056



Dimensions: Inches  
mm  
Unless otherwise specified, all tolerances are ±  $\frac{.010}{0,25}$