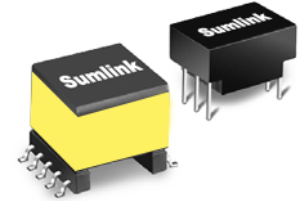


# VDSL TRANSFORMERS

## FEATURES

- Excellent return loss and balance
- Surface mount or through hole package
- Supplementary Insulation



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

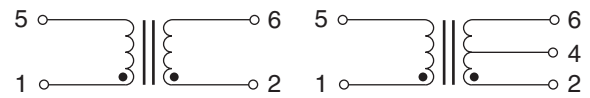
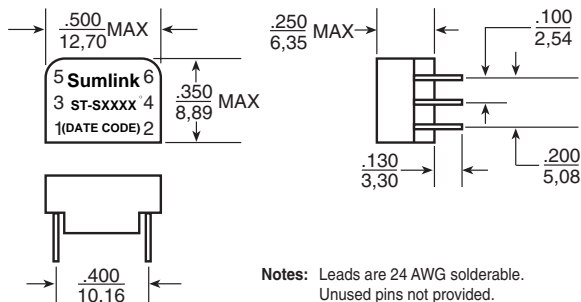
Part Number	Turns Ratio	Insertion Loss (dB MAX)	Return Loss (dB MIN)	Longitudinal Balance (dB TYP)	Isolation Voltage (Vrms)
ST-S4006 (THT)	1:1	200 kHz to 400 kHz: 0.75	200 kHz to 18 MHz: 20	200 kHz: 60	3000
		400 kHz to 30 MHz: 0.50	18 MHz to 30 MHz: 14	11 MHz: 50	
ST-S4023 (THT)	1:1CT	200 kHz to 20 MHz: 0.50	200 kHz to 18 MHz: 17	100 MHz: 40	3000
		20 MHz to 30 MHz: 0.75	18 MHz to 30 MHz: 13	200 kHz: 60	
ST-S4004 (SMT)	1CS:1CS	200 kHz to 11 MHz: 1.00	200 kHz: 10	200 kHz: 50	1500
			400 kHz: 16	2 MHz: 40	
			4 MHz: 16	11 MHz: 40	
			11 MHz: 10		

NOTES: Temperature range: -40°C to +80°C. Insertion loss increases by up to 1 dB at the extreme temperatures. Impedance for test: 100 Ω or 135 Ω. Small difference in return loss will occur.  
**Surge Voltage Capability:** Metallic: 800 Vpeak 10/560 μsec. Longitudinal: 2400 Vpeak 10/700 μsec.

## Mechanicals

## Schematics

### ST-S4006/ST-S4023



ST-S4006

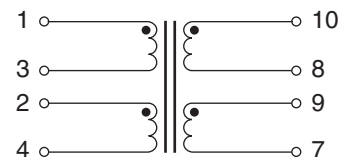
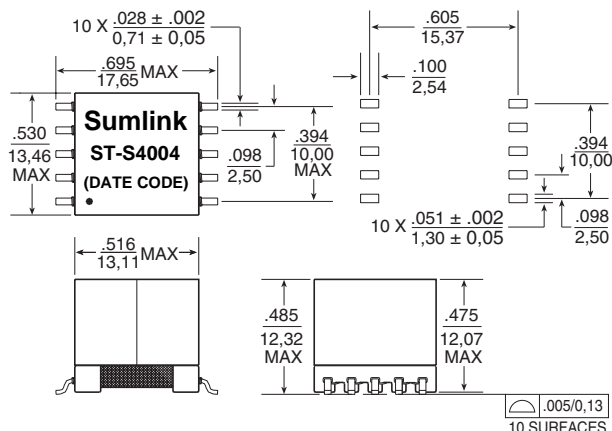
ST-S4023

Notes: Leads are 24 AWG solderable.  
Unused pins not provided.

Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0,25}$

### ST-S4004



Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0,25}$