

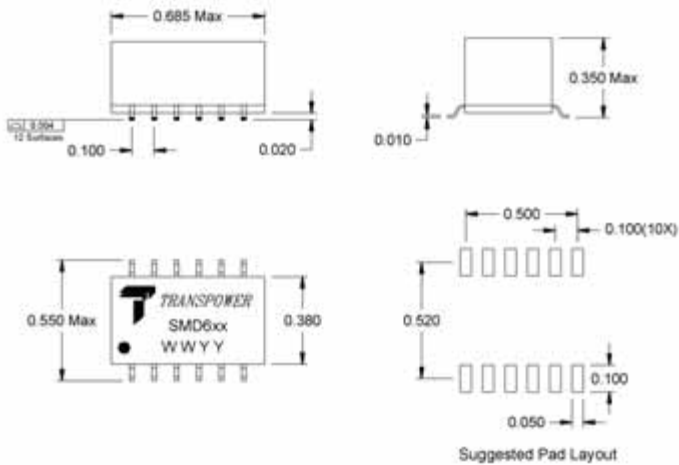
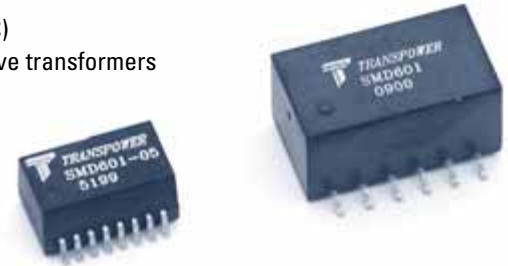
## TELECOMMUNICATIONS

### ISOLATION TRANSFORMERS — SURFACE-MOUNT



- Surface-mount package; for a smaller surface-mount package, see SMD6xx-05 datasheet
- Designed to accommodate transceiver chip sets from the leading IC vendors
- All components are available with industrial temperature rating (-40°C to +85°C)
- Dual package for complete single port application, includes transmit and receive transformers
- Package molded using UL94-V0 rated material

#### SMD6xx: Single Channel, Dual Transformer



All dimensions are  $\pm 0.005$  unless otherwise noted.  
All dimensions are in inches.

**SMD6xx Part Number Table**

Part Number	Turns Ratio (Pri:Sec)	
	Transmit	Receive
SMD601	1:1.23CT	1CT:2CT
SMD602	1CT:2CT	1CT:2CT
SMD603	1:1.36CT	1CT:2CT
SMD604	1CT:1/1.26	1:2CT
SMD605	1CT:1.15CT	1CT:1.15CT
SMD606	1CT:1CT	1CT:2CT
SMD607	1CT:1.41CT	1CT:1.41CT
SMD608	1CT:1CT	1CT:1CT
SMD609	1:1.36CT	1CT:1CT
SMD610	1CT:1.15CT	1CT:1CT
SMD611	1CT:2CT	1CT:2CT
SMD612	1CT:2.42CT	1CT:2.42CT
SMD613	1CT:2.42CT	1CT:1CT
SMD614	1CT:2CT	1CT:2CT
SMD615	1:1.36CT	1:1.36CT
SMD617	1:1.15CT	1:2CT
SMD618	1:1.15	1:1CT
SMD619	1:1.158	1:1CT
SMD620	1:2.4	1:2CT
SMD621	1:2.3	1:1CT
SMD622	1:1.18	1:1CT
SMD623	1:1.26CT	1:1.26CT
SMD624	1:1.58CT	1:1.58CT

#### T1/E1 Electrical Characteristics @ 25°C

Primary Inductance*:	1.2mH Min, 1.5 Typ for -ET parts 0.6mH Min for -ET parts @ -40°C
Leakage Inductance*:	0.6µH Max
Interwinding Capacitance*:	35pF Max
Dielectric Isolation (Pri:Sec):	1500 Vrms Min

#### Winding DC Resistance\*\*

Ratio Number	Ohms Max
1	0.70
1.15	0.80
1.23	0.90
1.26	0.90
1.36	0.90
1.41	1.00
2	1.20
2.4	1.50

For example:  
SMD603 has  
0.70 Ohm max Transmit Pri  
1.20 Ohm max Transmit Sec  
0.70 Ohm max Receive Pri  
0.90 Ohm max Receive Sec

\* All impedance measurements are made with 0.1Vrms@100kHz  
\*\* SMD604, SMD605, SMD608, SMD609 and SMD610 have low DC resistance windings that withstand DC line fault current of 1.75A indefinitely with no dielectric degradation.

Notes:  
1) P/N SMD604 provides two turns ratios.  
For 1:1, use secondary pins 2-3 and for 1:1.26, use secondary pins 1-3.  
2) Part numbers may be modified as follows:  
SMD6xxET indicates -40C to +85C operation  
SMD6xx-S meets UL1950 supplementary insulation requirements, 250V  
SMD6xx-R meets UL1950 reinforced insulation requirements