



Telecommunications

Quad Channel, Eight T1/E1 Isolation Transformers

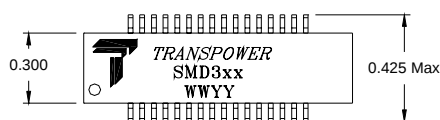
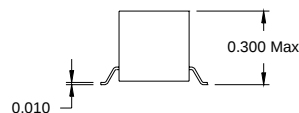
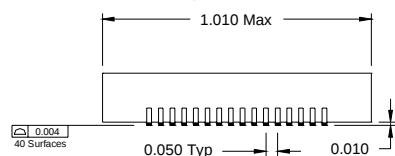
SMD3xx, Rev. I

24 Jan 02

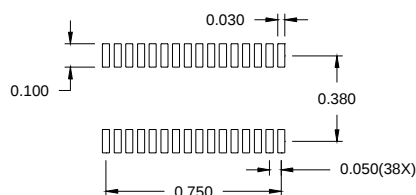
("xx" equals one of the circuit numbers in the table below the mechanical.)

General Features:

- Surface mount package
- Designed to accomodate transceiver chip sets from the leading IC vendors
- All components available with industrial temperature rating (-40°C to +85°C)
- Quad channel package includes 4 each transmit and receive transformers



All dimensions are in 0.005 unless otherwise noted.



Suggested Pad Layout

3901

T1/E1 Electrical Characteristics @ 25°C

Primary Inductance*:	1.2mH Min, 1.5mH Typ for ET parts 0.6mH Min for ET parts @ -40°C
Leakage Inductance*:	0.6uH Max
Interwinding Capacitance*:	30pF Max
Dielectric Isolation (Pri to Sec):	1500 Vrms Min

Winding DC Resistance

Ratio Number	Ohms Max
1	1.0
1.15	1.2
1.18	1.2
1.26	1.3
1.36	1.4
1.41	1.5
1.5	1.6
1.58	1.6
2	2.0
2.3	2.5
2.4	2.5

For example:

SMD303 has
1.0Ω Max Transmit Primary
1.4Ω Max Transmit Secondary
1.0Ω Max Receive Primary
2.0Ω Max Receive Secondary

4601

* Primary inductance measurements are made with 0.1Vrms@10kHz

* Leakage inductance and capacitance measurements are made with 0.1Vrms@100kHz

Note:

See the page 2 for the signal routing selections to complete the part number.

SMD3xx
Part Number Table

Operating Temperature		Turns Ratio (Pri:Sec)	
0°C to 70°C	-40°C to +85°C	Transmit	Receive
SMD301	SMD301ET	1:1.15	1:1
SMD302	SMD302ET	1:1.36	1:1
SMD303	SMD303ET	1:1.36	1:2
SMD304	SMD304ET	1:2	2:1
SMD305	SMD305ET	1:1.15	1.15:1
SMD307	SMD307ET	1:1	1:1
SMD308	SMD308ET	1:2	1:1
SMD309	SMD309ET	1:2.4	1:1
SMD310	SMD310ET	1:1.15	2:1
SMD311	SMD311ET	1:1.26	1:1
SMD312	SMD312ET	1:2.4	2.4:1
SMD313	SMD313ET	1:1.41	1:1.41
SMD315	SMD315ET	1:1.36	1.36:1
SMD318	SMD318ET	1:1.5	1:1
SMD319	SMD319ET	1:1.58	1:1
SMD320	SMD320ET	1:2.4	2:1
SMD321	SMD321ET	1:2.3	1:1
SMD322	SMD322ET	1:1.18	1:1
SMD324	SMD324ET	1:1.58	1.58:1

Notes:
1) Refer to the schematics on pages 2&3 for connection details.

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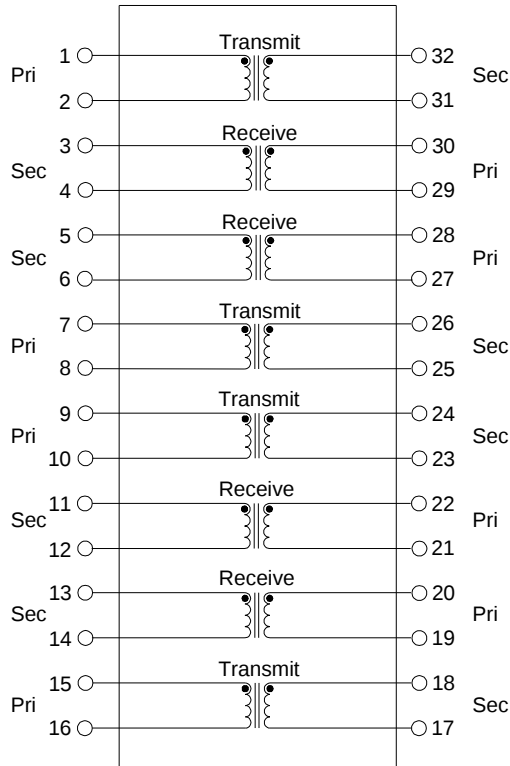


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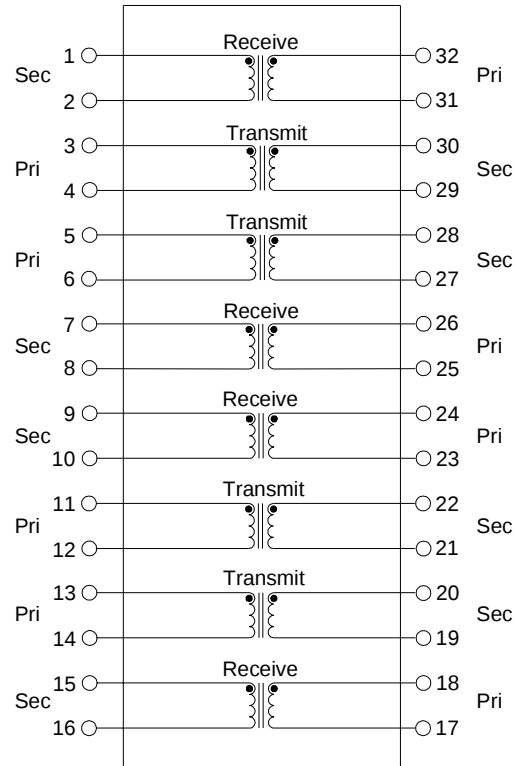
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SMD3xx Schematic



SMD3xx-1 Schematic

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Important

If an alternate signal routing is selected, the part number will be a combination of the part number chosen in the table on the first page and a signal routing number from this page. For example, if you chose the SMD304 from the chart

All components are available with industrial temperature rating (-40°C to +85°C) by adding "ET" to the base part number. For example, the industrial temperature range part number for the SMD304 is SMD304ET.