

ISDN S-INTERFACE TRANSFORMERS

Surface Mount, Single, 1.5 & 3 kVrms



- Meets the pulse waveform template of CCITT I.430, using recommended transformer and chip pair
- Compact SMT transfer-molded package with 1.5 kV and 3 kV compatible footprints
- Options for terminal, line card, and NT box applications

Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

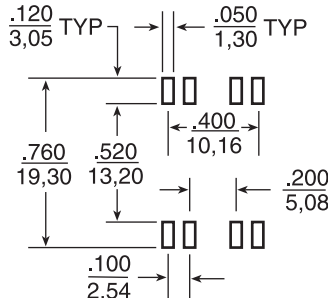
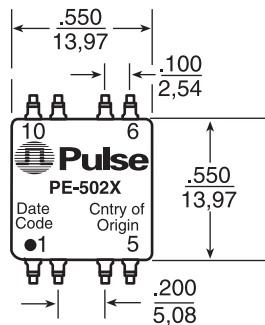
Part Number	Ratio Pri:Sec (± 2%)	OCL Pri (mH MIN)	Ll Sec (µH MAX)	Cw/w (pF MAX)	CD Pri (pF MAX)	DCR Pri (Ω MAX)	DCR Sec (Ω MAX)	D Icc (mA MAX)	Isolation Voltage (Vrms MIN)	Primary Pins	Package / Schematic
T5020	1:2	22	5	120	180	2.5	5.2	3	1500	1-10, 5-6	VAL 1/B
T5021	1:1	22	5	120	180	2.5	2.5	3	1500	1-10, 5-6	VAL 1/C
T5022	1:2.5	22	10	150	180	2.5	6	3	1500	1-10, 5-6	VAL 1/C
T5023	1:2	22	5	120	180	2.5	5	3	1500	1-10, 5-6	VAL 1/C
T5025	1:1	22	15	45	100	1.3	1.3	3	3000	6-7, 9-10	VAL 2/A

Note: See table for package heights (1 and 2).

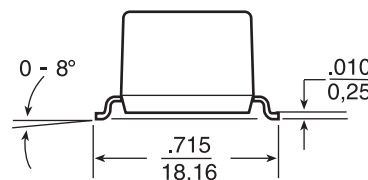
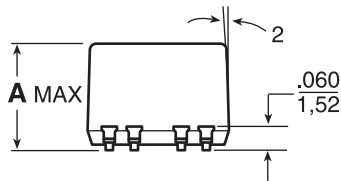
Mechanical

Schematic

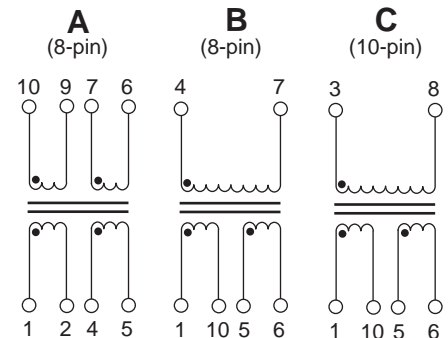
VAL



SUGGESTED PAD LAYOUT



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



Package Type	Package Height (A MAX)
VAL 1	.394/10,00 MAX
VAL 2	.429/10,88 MAX

NOTE: Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (ie:T5020T).

Packaging Information

Package	Part Weight	Parts/Tube	Parts/Reel	Reel Diameter	Tape Width	Pitch
VAL1	4.7 grams	35	150	13"	32mm	24mm
VAL2	5.0 grams	35	150	13"	32mm	24mm

USA 858 674 8100 • Germany 49 7032 7806 0 • Singapore 65 6287 8998 • Shanghai 86 21 62787060 • China 86 755 33966678 • Taiwan 886 3 4643715

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Transformer Selection Guide

IC Manufacturer	IC Part Number	Pulse Part Number Transmit & Receive 1.5 kV	Pulse Part Number Transmit & Receive 3 kV
AMD	AM 79C30A	T5020/T5023	—
Lucent	T7250/ T7252/ T7256	T5022	—
	T7259/ T7903/ T7234	T5020/T5023	—
Mietec	MTC-2072	T5020/T5023	—
Mitel	MT8930	T5020/T5023	—
Motorola	MC145474/ 145475	T5021	T5025
	MC145574	T5022	—
National	TP3420 / 3421	T5020/T5023	—
NEC	D98201	T5020/T5023	—
Siemens	PEB 2080/ 2081 / 2085	T5020/T5023	—
	PEB 2084/ 2086 / PSB 2186		
	PEB 8091/ 8191		
SGS Thomson	ST5420/ 5421	T5020/T5023	—
VLSI	VN580060	T5020/T5023	—
Yamaha	YM 7405B	T5020/T5023	—

NOTE: Choice of Transformer depends upon application:
1.5 kV Options: T5020 AND T5023 offer 8 and 10 pin variations

SMT Common Mode Chokes

Part Number	Number of Lines	Inductance	Peak Common Mode Attenuation	Application	Isolation Voltage (MAX)	DCR (Ω MAX)	Data Sheet
LOW FREQUENCY CHOKES							
PE-65853	4-Line	4.7 mH \pm 30%	1 MHz	Improve Balance	500 Vrms	1.20	G002
HIGH FREQUENCY CHOKES							
PE-65854NL	4-Line	47 μ H Min	30 MHz	EMI Reduction	500 Vrms	0.38	G002
PE-65857NL	4-Line	22.5 μ H Min	50 MHz	EMI Reduction	500 Vrms	0.22	G002
PE-68624NL	2-Line	47 μ H Min	30 MHz	EMI Reduction	500 Vrms	0.40	G002

NOTE: The "High-frequency" 4-wire common mode chokes provide an effective means of compliance with national and international regulations on EMI. They are designed to be used in conjunction with Pulse ISDN S-Interface transformers. A high-inductance "low-frequency" common mode choke is recommended to improve balance or to correct inherent unbalances of some ISDN S-Interface circuits.

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