

# ISDN U-INTERFACE TRANSFORMERS

For Applications with 2B1Q and 4B3T Coding



- Matched to leading transceiver ICs
- Parts meet ANSI T1.601-1992 and ETSI ETR 080
- Transformer models with 2000Vrms to 3000Vrms minimum isolation
- UL recognized

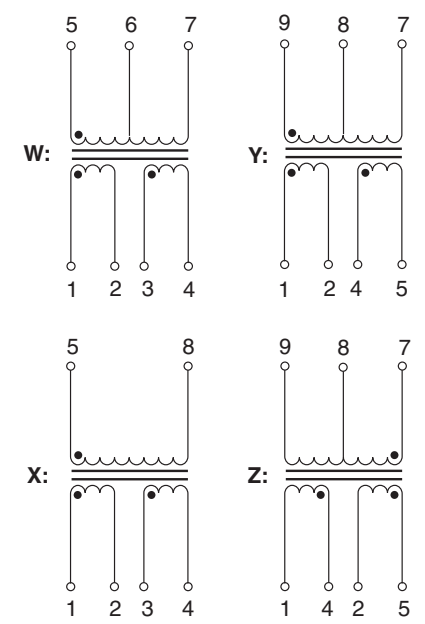
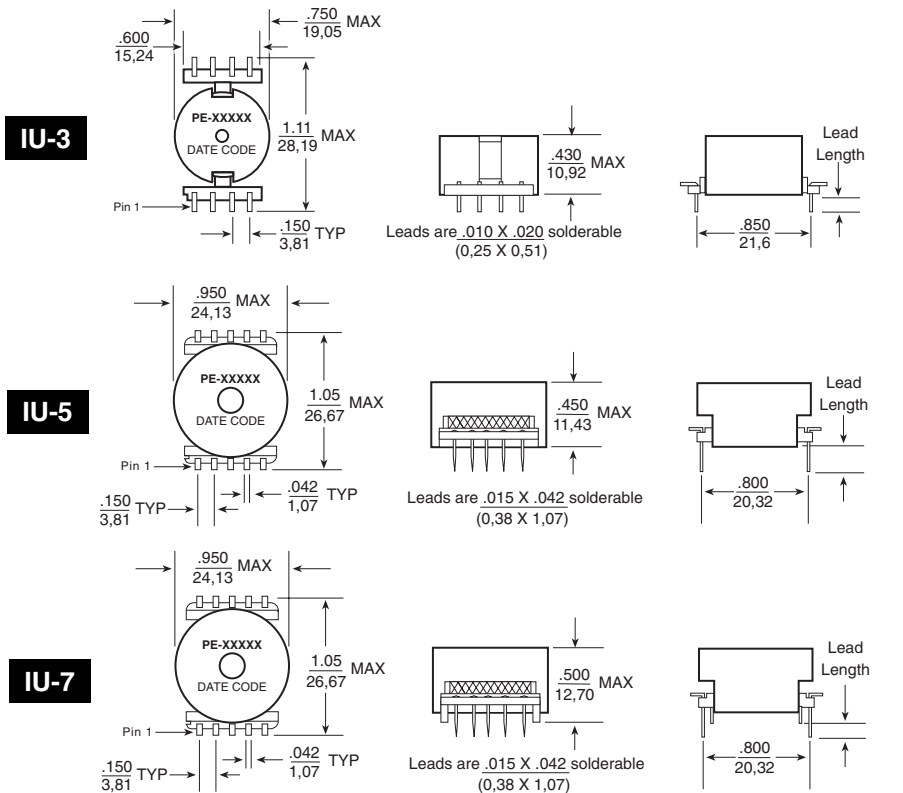
## Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

Isolation Voltage (Vrms MIN)	Part Number	Turns Ratio Line:Chip (±3%)	Line Side Pins	OCL Line side (mH)	DCR Line Side (Ω)	DCR Chip Side (Ω)	IDC (mA)	Lead Length	Package/Schematic
2000 Vrms	PE-65575*	1.65:1	(1-4)	13.0-18.0	5.2 ±15%	3.0 ±15%	50	0.15 ± 0.03 (3,81 ± 0,76)	IU-3/W <sup>4</sup>
	PE-65578	1.32:1	(1-4)	7.0-8.3	2.4 MAX	2.7 MAX	55	0.15 ± 0.03 (3,81 ± 0,76)	IU-3/X
	PE-65579	2.00:1	(1-5)	25.5-28.5	11.6 MAX	6.4 MAX	60	0.17 ± 0.04 (4,32 ± 1,02)	IU-5/Y
	PE-65581	1.50:1	(4-2)	14.2-15.8	16.0 MAX	2.5 MAX	60	0.17 ± 0.04 (4,32 ± 1,02)	IU-5/Z
	PE-65583	1.50:1	(4-2)	25.6-29.0	20.0 MAX	3.0 MAX	60	0.16 ± 0.03 (4,06 ± 0,76)	IU-5/Z <sup>2</sup>
	PE-65584	1.50:1	(1-5)	25.6-29.0	20.0 MAX	3.0 MAX	60	0.17 ± 0.04 (4,32 ± 1,02)	IU-5/Y <sup>2</sup>
2500 Vrms	PE-68628*	1.25:1	(1-5)	26.5-29.5	12.0 MAX	7.0 MAX	80	0.16 ± 0.03 (4,06 ± 0,76)	IU-5/Y <sup>2</sup>
	PE-68631	1.50:1	(4-2)	25.6-29.0	20.0 MAX	3.0 MAX	60	0.13 ± 0.03 (3,30 ± 0,76)	IU-7/Z <sup>2</sup>
	PE-68681	1.50:1	(1-5)	25.6-28.4	20.0 MAX	3.0 MAX	60	0.13 ± 0.03 (3,30 ± 0,76)	IU-7/Y <sup>2</sup>
3000Vrms	PE-68668*	1.25:1	(1-5)	26.5-29.5	13.0 MAX	7.5 MAX	80	0.13 ± 0.03 (3,30 ± 0,76)	IU-7/Y <sup>2</sup>
	PE-68669*	1.65:1	(1-4)	13.0-18.0	5.2 ±15%	3.0 ±15%	50	0.13 ± 0.03 (3,30 ± 0,76)	IU-3/W

NOTE: For surface mount versions of these parts, please see data sheet T614. New small surface mount package available. Contact Pulse Application Engineering at (619) 674-8100 for more information. \*Operating temperature range: -40°C to 85°C.

## Mechanicals

## Schematics



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

USA 858 674 8100 • Germany 49 7032 7806 0 • Singapore 65 6287 8998 • Shanghai 86 21 54643211 / 2 • China 86 755 33966678 • Taiwan 886 3 4641811

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## Additional Specifications

Return Loss (2B1Q) (10 and 25Hz)	Longitudinal Balance (2B1Q)		Longitudinal Balance (4B3T)		Surge Voltage Resistability (ALL)	
20dB MIN	28Hz to 40kHz	55dB MIN	5kHz	20dB MIN	Metallic @ 800V Peak	10/700µsec
—	Above 40kHz	-20dB/decade	20kHz-150kHz	40dB MIN	Long. @ 2400V Peak	10/560µsec
—	—	—	1MHz	36dB MIN	—	—

## Transformer Selection

Company	Chip	Coding	Transformer 2000Vrms Isolation	Transformer High Isolation Models
Motorola	MC145472	2B1Q	PE-65579	—
Motorola	MC145572	2B1Q	PE-68628	PE-68668
National	TP 3410	2B1Q	PE-65583 <sup>(1)</sup>	PE-68631
			PE-65584 <sup>(1)</sup>	PE-68681
Siemens	PEB 2091	2B1Q	PE-65575 <sup>(4)</sup>	PE-68669
Siemens	PEB 2090 PEB 20901	4B3T	PE-65578	—
Thomson	SD 5411	2B1Q	PE-65581	—

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