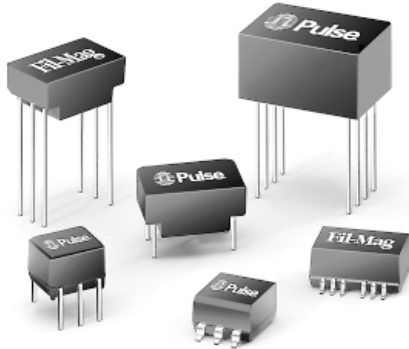






GENERAL PURPOSE TRANSFORMERS



2 Watt Pulse, Electrostatically Shielded,
500 mW Pulse, RF Pulse, and Control Transformers



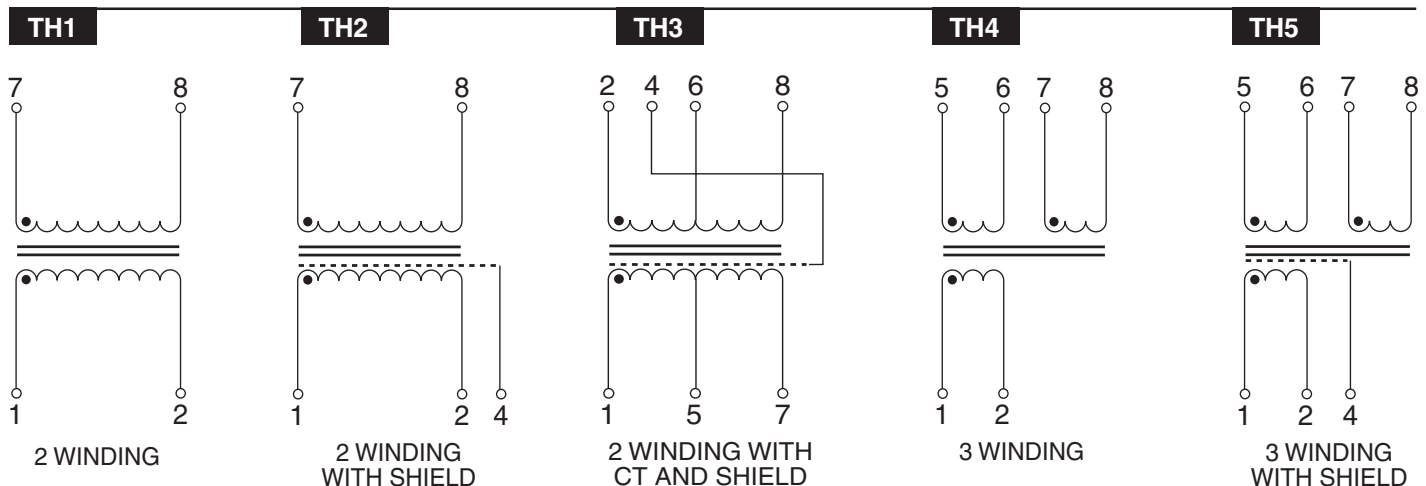
-  Wide range of inductors and turns ratios
-  Suitable for a variety of applications
-  High flux density capability
-  Available in through hole and surface mount packages

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

Part Number	Turns Ratio (±5%)	Primary Sine Wave OCL (mH MIN)	Primary ET-Constant (V-μs MIN)	Rise Time (ns MAX)	PRI/SEC* C _{WW} (pF MAX)	Leakage Inductance PRI/SEC (μH MAX)	DCR Primary (Ω MAX)	DCR Secondary (Ω MAX)	DCR Tertiary (Ω MAX)	Hi-Pot (V _{rms})	Schematic/Package Style
2 WATT PULSE TRANSFORMERS											
PE-2227X	1:1	0.5	46	8	26	1.7	1.3	1.4	—	700	TH1
PE-2228X	1:1	1.3	84	30	40	3.0	3.6	3.8	—	700	TH1
PE-2243X	1:1	20.0	250	80	87	10.5	27.0	28.0	—	700	TH1
PE-2229X	1:1:1	1.3	91	30	38	3.2	3.6	3.8	3.9	700	TH4
PE-2231X	1:1:1	5.0	196	70	35	13.0	8.8	9.6	11.0	700	TH4
PE-2671X	4:1:4	0.2	53	50	17	5.7	1.2	0.2	1.3	700	TH4
ELECTROSTATICALLY SHIELDED TRANSFORMERS											
PE-5154X	1:1	0.2	91	17	2.7	3.1	1.6	1.6	—	700	TH2
PE-5156X	1:1	1.2	77	19	4.1	2.8	1.1	1.1	—	700	TH2
PE-5160X	1:1	10.0	224	200	4.5	22.0	11.0	11.0	—	700	TH2
PE-5158X	1CT:1CT	1.0	77	21	3.2	2.5	1.8	1.8	—	700	TH3
PE-5163X	1CT:1CT	10.0	252	60	2.5	16.7	14.0	14.0	—	700	TH3

*NOTE: for Electrostatically Shielded Transformers, C_{WW} is measured with shield corrected to guard voltage.

Schematics



U.S: 858 674 8100 • U.K: 44 1483 401 700 • France: 33 3 84 35 04 04 • Singapore: 65 287 8998 • Taiwan: 886 2 2698 0228 • <http://www.pulseeng.com>

GENERAL PURPOSE TRANSFORMERS

500 mW Pulse

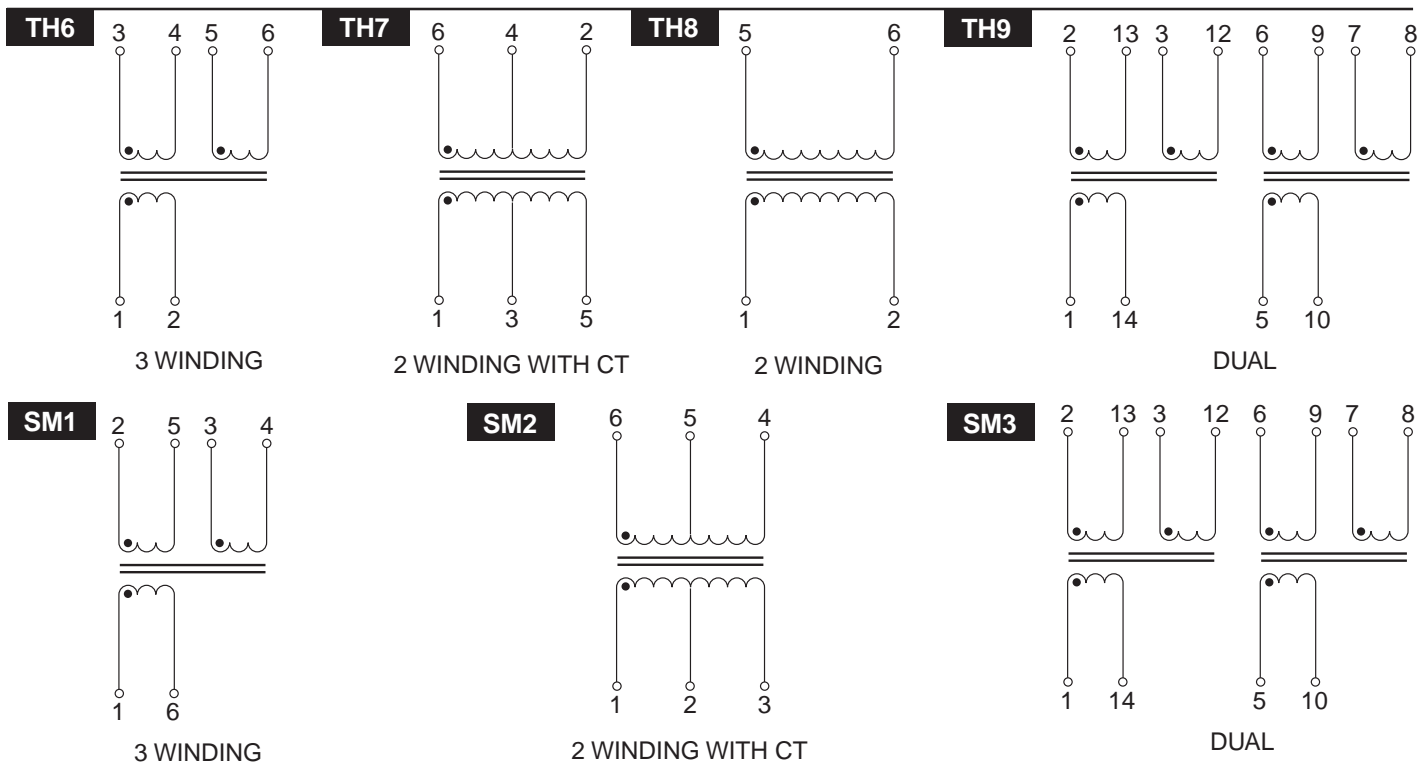


Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

Part Number	Turns Ratio (±5%)	Primary Sine Wave OCL (mH MIN)	Primary ET-Constant (V-μs MIN)	Rise Time (ns MAX)	PRI/SEC C _{ww} (pF MAX)	Leakage Inductance PRI/SEC (μH MAX)	DCR Primary (Ω MAX)	DCR Secondary (Ω MAX)	DCR Tertiary (Ω MAX)	Hi Pot V _{rms}	Schematic Package Style
500 mW PULSE TRANSFORMERS											
PE-5760	1:1:1	5.0	25.0	10.5	70	1.3	3.9	3.9	3.9	500	TH6
PE-5761	1:1:1	2.0	16.0	8.2	37	0.8	2.5	2.5	2.5	500	TH6
PE-5762	1:1:1	0.5	8.5	5.3	32	0.4	1.3	1.3	1.3	500	TH6
PE-5763	1:1:1	0.2	5.0	4.2	18	0.3	0.9	0.9	0.9	500	TH6
PE-5764	1:1:1	0.05	5.2	5.6	18	0.5	1.3	1.3	1.3	500	TH6
PE-5769	2:1:1	0.5	8.5	5.6	11	1.1	1.3	0.7	0.7	500	TH6
PE-8270	1CT:1CT	2.0	16.0	—	37	0.8	2.5	2.5	—	700	TH7
PE-8271	1CT:1CT	0.5	8.5	—	32	0.4	1.3	1.3	—	500	TH7
PE-8272	1CT:1CT	0.2	5.0	4.2	18	0.3	0.9	0.9	—	700	TH7
PE-8276	2CT:1CT	2.0	16.0	—	19	1.8	2.5	1.4	—	500	TH7
PE-8277	2CT:1CT	0.5	8.5	—	12	1.2	1.4	0.8	—	700	TH7
PE-65502	1.25:1	1.2	10.0	10.0	35	0.8	0.8	0.7	—	1500	TH8
23Z81	1:1:1 dual	.085	2.5	3.0	9.5	0.2	0.20	—	—	500	TH9
66Z1203	1:1:1	—	25.0	10.5	60	1.3	3.9	3.9	3.9	500	TH6
66Z1212	1:1:1	—	16.0	11.0	19	1.8	2.5	1.4	1.4	500	TH6
PE-5762M	1:1:1	0.5	5.0	4.2	25	0.3	0.9	0.9	0.9	1500	SM1
PE-5763M	1:1:1	0.2	4.0	3.5	18	0.2	0.7	0.7	0.7	1500	SM1
PE-5769M	2:1:1	0.5	5.0	4.2	18	0.3	0.9	0.45	0.45	1500	SM1
PE-8271M	1CT:1CT	0.5	5.0	4.2	18	0.3	0.9	0.9	—	1500	SM2
PE-8272M	1CT:1CT	0.2	4.0	3.5	14	0.2	0.7	0.7	—	1500	SM2
PE-8277M	2CT:1CT	0.5	5.0	6.0	18	0.7	0.9	0.45	—	1500	SM2
23Z81SM	1:1:1 dual	.085	2.5	3.0	9.5	0.2	0.20	—	—	500	SM3
23Z87SM	1:1:1	.085	2.5	3.0	9.5	0.2	0.20	—	—	500	SM2

NOTE: To order Tape & Reel packaging for surface mount parts, add the suffix "T" to the part number. (Example: PE-5769MT). The "T" will appear on all paper work, but will not be marked on parts.

Schematics



U.S: 858 674 8100 • U.K: 44 1483 401 700 • France: 33 3 84 35 04 04 • Singapore: 65 287 8998 • Taiwan: 886 2 2698 0228 • <http://www.pulseeng.com>

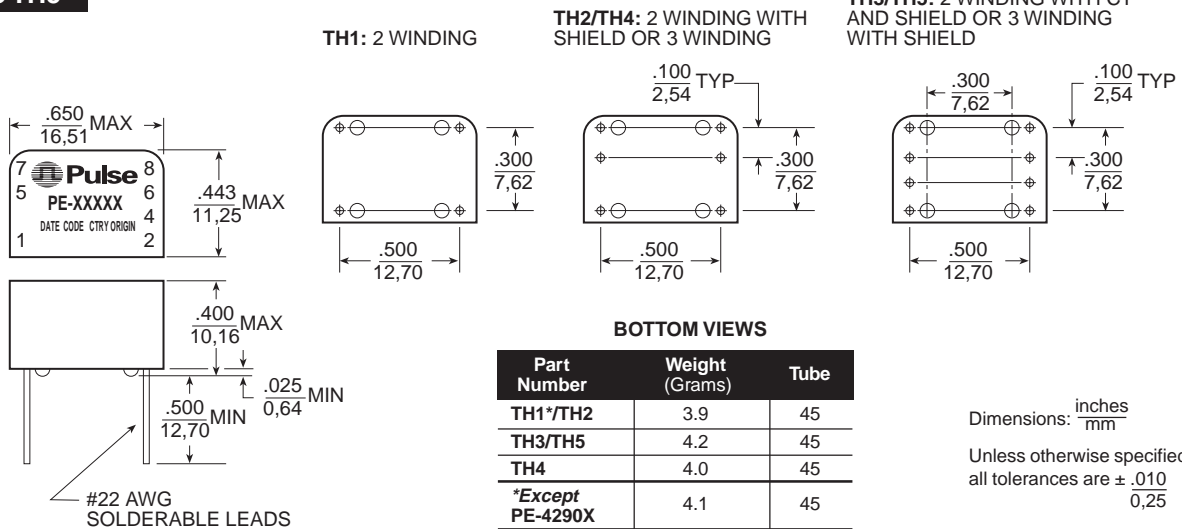
GENERAL PURPOSE TRANSFORMERS

2 Watt Pulse, Electrostatically Shielded, and 500 mW Pulse Transformers

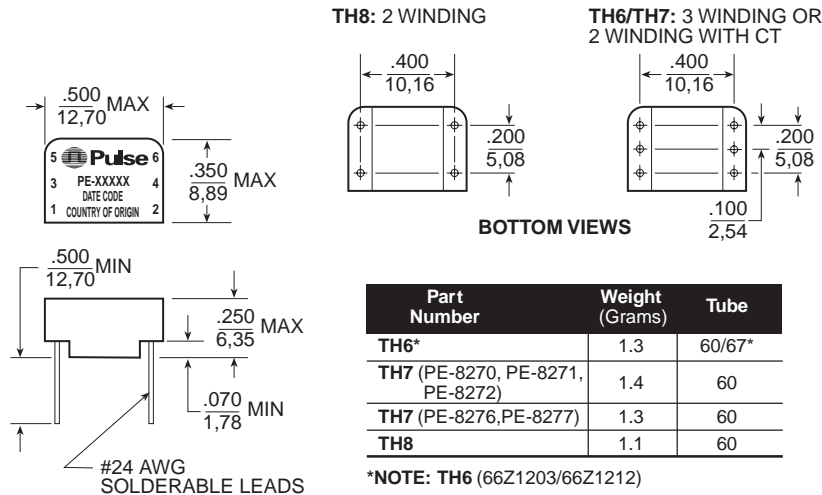


Mechanicals

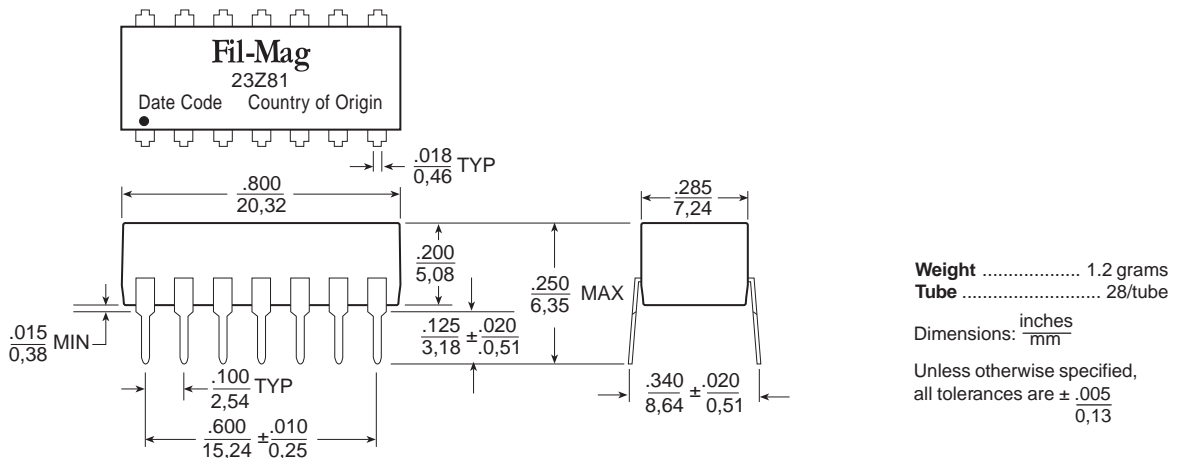
TH1 to TH5



TH6 to TH8



TH9



GENERAL PURPOSE TRANSFORMERS

2 Watt Pulse, Electrostatically Shielded, and 500 mW Pulse Transformers



Mechanicals

SM1 & SM2 (except 23Z87SM)

SUGGESTED PAD LAYOUT

23Z87SM

SUGGESTED PAD LAYOUT

Part	Weight (Grams)	Tape & Reel	Tube
SM1	0.6	500	65
SM2:			
PE-8271M	0.7	500	60
PE-8272M	0.7	500	65
PE-8277M	0.6	500	65
Except 23Z87SM	0.5	750	100

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

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

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

Unless otherwise specified, all tolerances are $\pm \frac{.005}{0,13}$

SM3

SUGGESTED PAD LAYOUT

Weight 0.9 grams

Tube 50/tube

Tape & Reel 750/reel

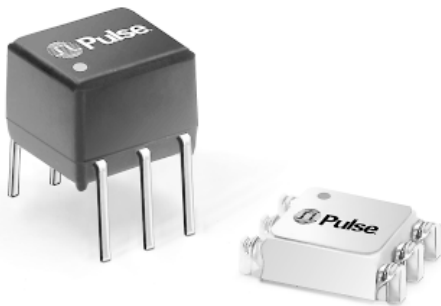
Dimensions: $\frac{\text{inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are $\pm \frac{.005}{0,13}$

U.S: 858 674 8100 • U.K: 44 1483 401 700 • France: 33 3 84 35 04 04 • Singapore: 65 287 8998 • Taiwan: 886 2 2698 0228 • <http://www.pulseeng.com>

GENERAL PURPOSE TRANSFORMERS

RF Pulse



- Designed for use in 50 Ω Wideband IC applications
- Characterized for Pulse and wide band use at 50 Ω impedance
- Standard 6-pin DIP package or *ThinSet* surface mount package

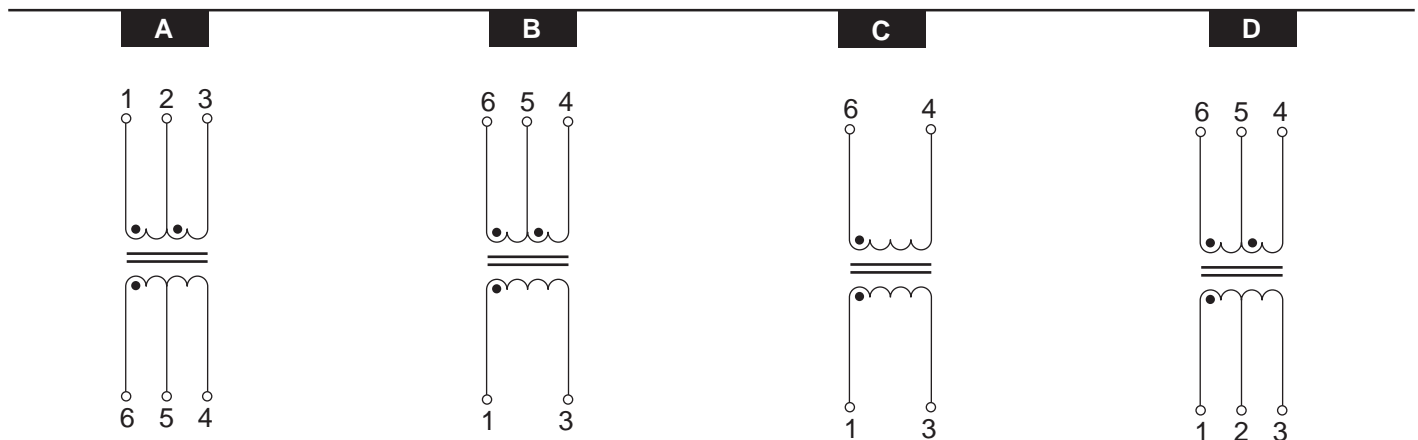
Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

Part Number	Turns Ratio ($\pm 5\%$)	Primary Pulse Inductance (μH MIN)	Primary ET-Constant (v- μS MIN)	PRI/SEC C _{ww} (pF MAX)	PRI/SEC Leakage Inductance (μH MAX)	Primary DCR (Ω MAX)	Secondary DCR (Ω MAX)	Bandwidth for -3 dB Loss		Schematic/Package Style
								Low Freq (MHz)	High Freq (MHz)	
SURFACE MOUNT*										
PE-65457	1CT:1CT	80	2.5	15	0.18	0.20	0.20	0.05	90	A / SMT1
PE-65459	1CT:2CT	40	2.0	15	0.14	0.20	0.30	0.05	110	A / SMT1
23Z247SMD	1:1CT	80	2.5	15	0.18	0.20	0.20	0.05	90	B / SMT2
THROUGH HOLE										
PE-62245A	1:1	40	2.5	12	0.15	0.20	0.20	0.05	110	C / TH10
PE-62246A	1CT:1CT	40	2.5	15	0.18	0.20	0.20	0.05	90	D / TH10
PE-62250A	1:2CT	25	2.0	15	0.14	0.20	0.30	0.10	110	B / TH10
PE-62252A	1: $\sqrt{2}$ CT	40	2.5	18	0.20	0.20	0.30	0.05	80	B / TH10
PE-62254A	1:4CT	10	1.25	10	0.10	0.20	0.60	0.20	60	B / TH10

***NOTE:**

To order Tape & Reel packaging for surface mount parts, add the suffix "T" to the part number. (Example: PE-65457T). The "T" will appear on all paper work, but will not be marked on parts.

Schematics



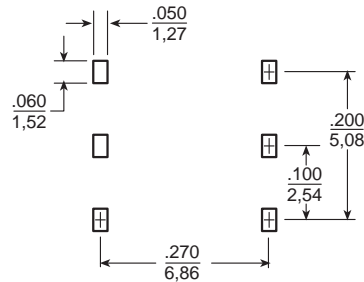
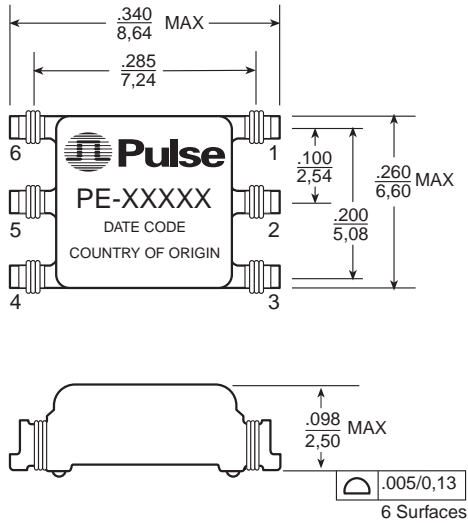
GENERAL PURPOSE TRANSFORMERS

RF Pulse



Mechanicals

SMT 1



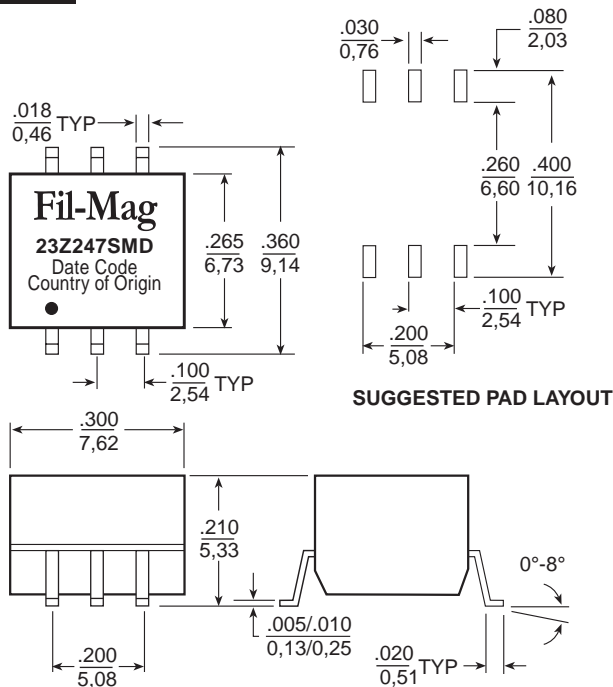
SUGGESTED PAD LAYOUT

	PE-65457	PE-65459
Weight	0.2 grams	0.1 grams
Tube	60/tube	60/tube
Tape & Reel	1500/reel	1500/reel

Dimensions: inches
mm

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

SMT 2



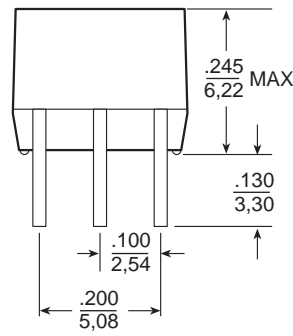
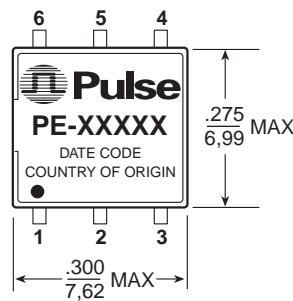
SUGGESTED PAD LAYOUT

Weight	0.5 grams
Tube	76/tube
Tape & Reel	750/reel

Dimensions: inches
mm

Unless otherwise specified, all tolerances are $\pm .005$
 $0,13$

TH10



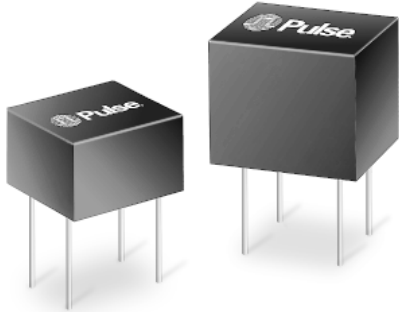
Weight	0.6 grams
Tube	65/tube




Dimensions: inches
mm

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

GENERAL PURPOSE TRANSFORMERS

Control Transformers



-  Recognized component – Underwriter's Laboratories, Inc.
-  High dielectric strength capability for industrial applications
-  High ET – product allows long pulse width

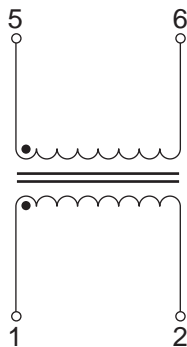
Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

Part Number	Turns Ratio (±10%)	Primary Sine Wave OCL (mH MIN)	Primary ET-Constant (V-μs MIN)	PRI/SEC C _{ww} (pF MAX)	PRI/SEC Leakage Inductance	Primary DCR (Ω MAX)	Secondary DCR (Ω MAX)	Hi Pot* PRI/SEC (Vrms)	Schematic/Package Style
PE-61001	1:1	1.0	360	30	15.0	2.8	3.1	1600	A/TH11
PE-61003	2:1	0.2	180	24	5.0	1.4	0.9	1600	A/TH11
PE-61006	1:1:1	0.2	180	30	5.0	—	1.5	1600	B/TH11
PE-61007	1:1:1	1.0	360	36	12.0	2.8	3.6	1600	B/TH11
PE-61008	1:1:1	5.0	866	42	80.0	6.0	7.2	1600	B/TH11
PE-61014	1:1	1.0	700	36	26.0	3.0	3.2	2400	A/TH12
PE-61015	1:1	5.0	1500	42	130.0	6.3	7.0	2400	A/TH12
PE-61017	2:1	1.0	700	36	24.0	3.0	2.0	2400	A/TH12
PE-61018	2:1	5.0	1500	42	125.0	6.3	4.0	2400	A/TH12
PE-61019	1:1:1	0.2	290	34	4.7	1.4	1.5	2400	B/TH12
PE-61023	2:1:1	1.0	700	40	27.0	3.0	2.0	2400	B/TH12

*NOTE: PE-61001–PE-61023 Hi Pot SEC/SEC 300 Vrms. Average Power Rating: 2 Watts. UL-478 Recognized, File Number E52661.

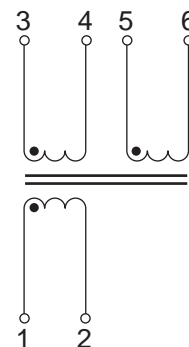
Schematics

A



2 WINDING

B



3 WINDING

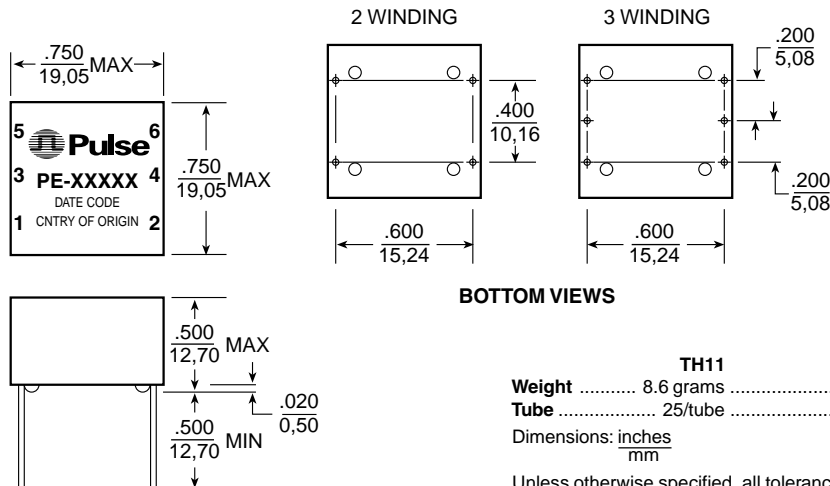
GENERAL PURPOSE TRANSFORMERS

Control Transformers



Mechanicals

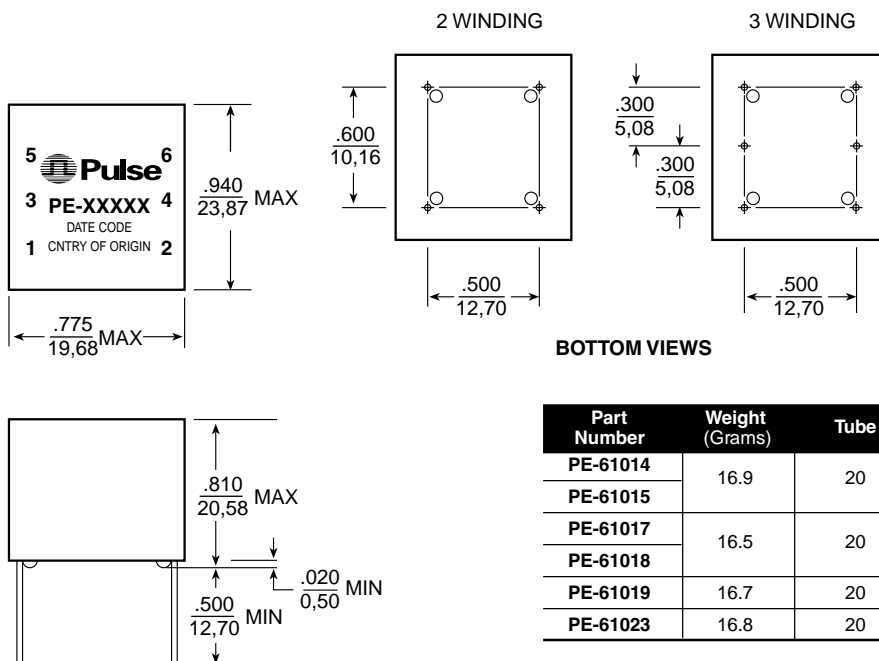
TH11



BOTTOM VIEWS

TH11 **Except PE-61003**
Weight 8.6 grams 8.2 grams
Tube 25/tube 25/tube
Dimensions: inches
 mm
Unless otherwise specified, all tolerances are $\pm \frac{.010}{0,25}$

TH12



BOTTOM VIEWS

Part Number	Weight (Grams)	Tube
PE-61014	16.9	20
PE-61015		
PE-61017	16.5	20
PE-61018		
PE-61019	16.7	20
PE-61023	16.8	20

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

For More Information :

UNITED STATES (Worldwide)

12220 World Trade Drive
San Diego, CA 92128
U.S.A.
http://www.pulseeng.com
TEL: 858 674 8100
FAX: 858 674 8262

UNITED KINGDOM (Northern Europe)

1 & 2 Huxley Road
The Surrey Research Park
Guildford, Surrey GU2 5RE
United Kingdom
TEL: 44 1483 401700
FAX: 44 1483 401701

FRANCE (Southern Europe)

Zone Industrielle
F-39270
Orgelet
France
TEL: 33 3 84 35 04 04
FAX: 33 3 84 25 46 41

SINGAPORE (Southern Asia)

150 Kampong Ampat
#07-01/02
KA Centre
Singapore 368324
TEL: 65 287 8998
FAX: 65 280 0080

TAIWAN, R.O.C. (Northern Asia)

3F-4, No. 81, Sec. 1
HsinTai Wu Road
Hsi-Chih, Taipei Hsien
Taiwan, R.O.C.
Tel: 886 2 2698 0228
FAX: 886 2 2698 0948

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