RF TRANSFORMERS
Transformers for Wideband RF Applications

Pulse
A TECHNITROL COMPANY

- Miniature surface mount package
- Various impedance ratios available
- Excellent insertion loss
- Ideal for Balanced-to-Unbalanced applications
- Products from 0.5 to 1500MHz bandwidth

Electrical Specifications @ 25°C — Operating Temperature -40°C to +85°C

Part Number	Impedance Ratio[1] Pri:Sec (±2%)	Turns Ratio Pri:Sec (±2%)	Bandwidth [2, 3] (MHz TYP)			Insertion Loss @ Midband (dB TYP)	Schematic	Primary Pins
			3dB	2dB	1dB			
CX2040	1:1	1:1	1.5-500	2.5-400	5-350	0.90	A	4-6
CX2043	1.5:1	$\sqrt{1.5}$:1	–	–	1-1000	0.20	D	3-6
CX2044	1.5:1	$\sqrt{1.5}$:1	–	1.0-500	5-100	0.20	A	1-3
CX2045	1:2CT	1:1.414CT	–	–	3-300	0.80	B	4-6
CX2047	1:4CT	1:2CT	–	0.5-300	1.5-100	0.24	B	4-6

Electrical Specifications @ 25°C — Operating Temperature -40°C to +85°C

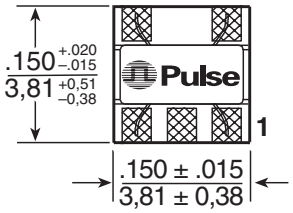
Part Number	Impedance Ratio[1] Pri:Sec (±2%)	Bandwidth [2, 3] (MHz TYP)		Schematic	Primary Pins
		2dB	1dB		
CX2038	75Ω:75Ω	Up to 1500	4.5-1000	C	4-6
CX2039	50Ω:50Ω	Up to 1500	4.5-1000	C	4-6

NOTE: Optional Tape & Reel packaging can be ordered by adding a "**T**" suffix to the part number (ex: CX2040**T**).

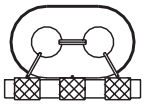
Mechanical

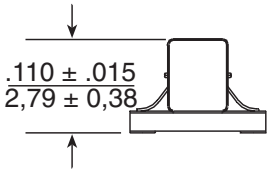
RAQ

Top View

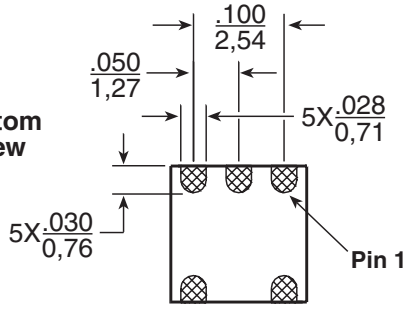


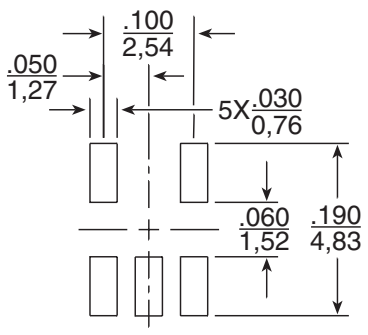
Side View





Bottom View





SUGGESTED PAD LAYOUT

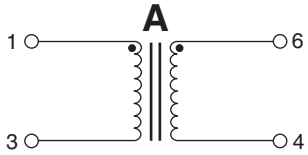
Tape & Reel . . . . . .1000 /reel
Tray . . . . . .100 /tray
Power Rating . . . . . .30 mA MAX; 0.25 W MAX

Dimensions: Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25

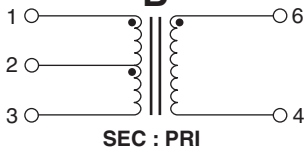
Schematics

A



PRI : SEC

B

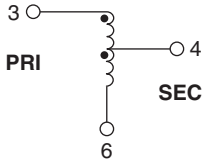


SEC : PRI

C

PRI : SEC

D



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Application Notes

A. Bandwidth specifications for **CX2040** and **CX2047** are for a 50Ω system.

B. Materials used in the products are UL94-V0 recognized. Products meet requirements of IEC 695-2-2 (Needle Flame Test).

C. **CX2038**, **CX2039** and **CX2043** transformer configurations do not provide DC isolation between primary and secondary windings.

D. For additional impedance ratios and frequency ranges, please contact Pulse Applications Engineering.

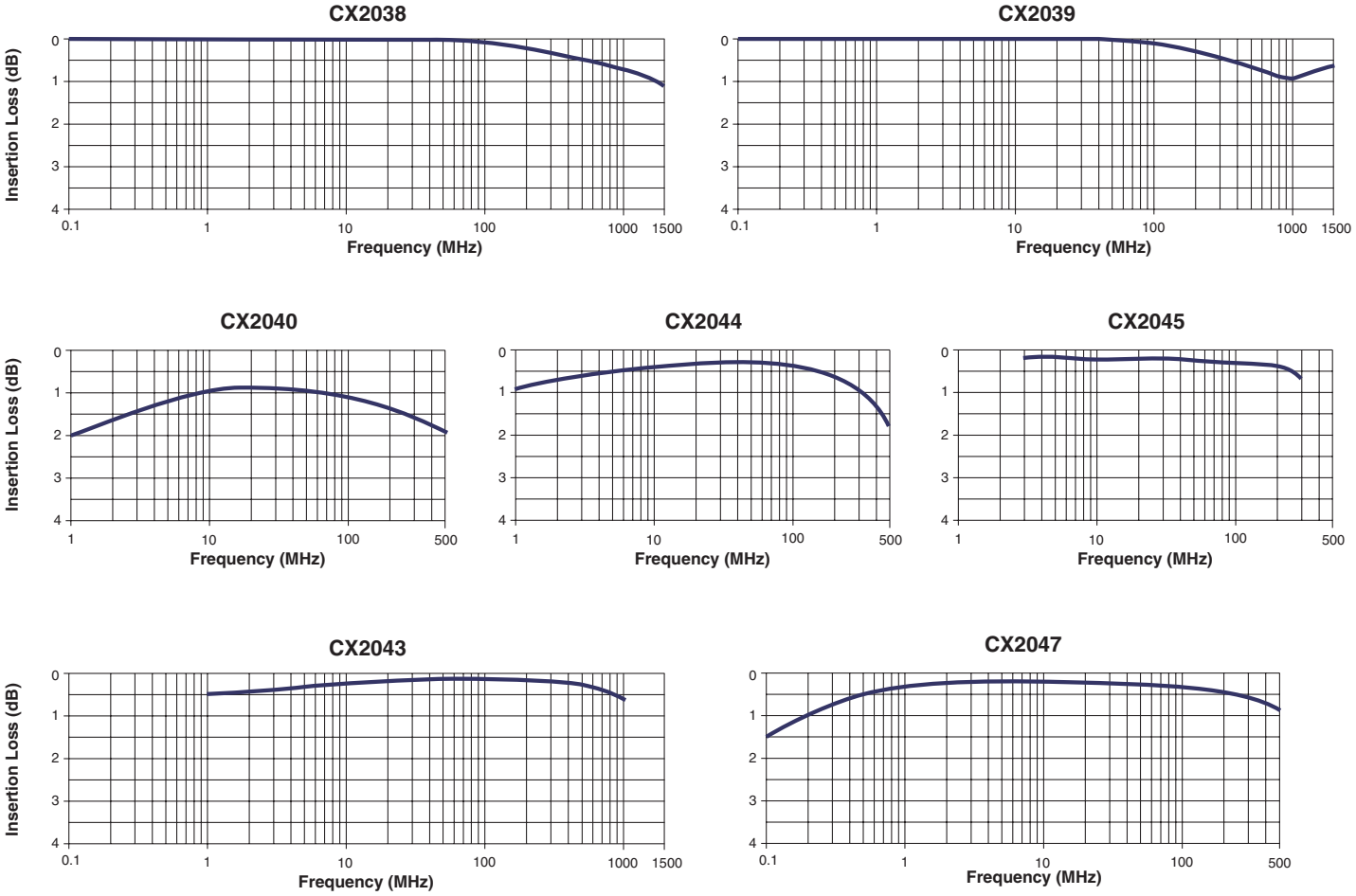
E. Pick and place operation: smooth upper surface of device allows automatic pick and place.

F. For availability of Lead-Free version of this product, please contact Pulse.

Notes from Tables

1. Impedance & turns ratios are specified primary:secondary. (CT=Center Tap).
2. Bandwidth is referenced to midband loss.
3. These transformers are verified to operate from -40°C to +85°C. Contact Pulse Applications Engineering for performance data.

Typical Insertion Loss @ 25°C



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