



SURFACE MOUNT RF Transformer

50/12.5Ω 2 to 1100 MHz

TC4-11X+
Upgraded Version*

TC4-11+

Mini-Circuits

***Addition of Top Hat® Feature Benefits**

- Allows Faster Pick-and-Place
- Enables Visual Identification Marking



Generic photo used for illustration purposes only

CASE STYLE: AT224-1A

+RoHS Compliant

The +Suffix identifies RoHS Compliance.

See our website for methodologies and qualifications

FEATURES

- Wideband, 2 to 1100 MHz
- Good Return Loss
- Impedance Matching
- Step-Down Autotransformer
- Plastic Base with Leads
- Aqueous Washable

APPLICATIONS

- Cellular

ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio (Primary/Secondary)			50/12.5		Ohms
Frequency Range		2		1100	MHz
Insertion Loss ¹	2-1100		2.0		dB
	5-700		1.0		

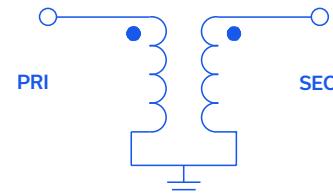
1. Insertion Loss is referenced to mid-band loss, 0.4 dB typ.
Step down, 50Ω primary, 5.2 pF across secondary.

ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-20°C to +85°C
Storage Temperature	-55°C to +100°C
RF Power	0.25 W
DC Current	30 mA

Permanent damage may occur if any of these limits are exceeded.

CONFIG. D

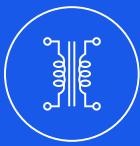


REV. H
ECO-027705
TC4-11+
MCL NY
251118

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www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

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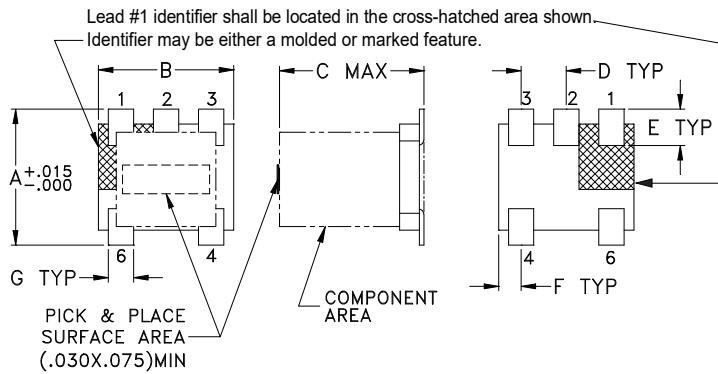
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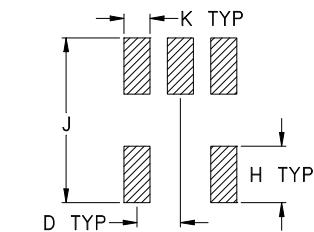
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PIN CONNECTIONS

PRIMARY DOT	6
PRIMARY	3
SECONDARY DOT	1
SECONDARY	3
NOT USED	2,4

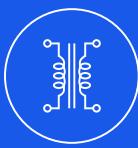
PRODUCT MARKING: N/A**DEMO BOARD MCL P/N:** TB-TC4-11+**OUTLINE DRAWING**

PCB Land Pattern

Suggested Layout,
Tolerance to be within $\pm .002$ in**OUTLINE DIMENSIONS (Inch mm)**

A	B	C	D	E	F
.150 3.81	.150 3.81	.160 4.06	.050 1.27	.040 1.02	.025 0.64
G	H	J	K		wt
.028 0.71	.065 1.65	.190 4.83	.030 0.76		grams 0.15

TAPE & REEL INFORMATION: F17



SURFACE MOUNT

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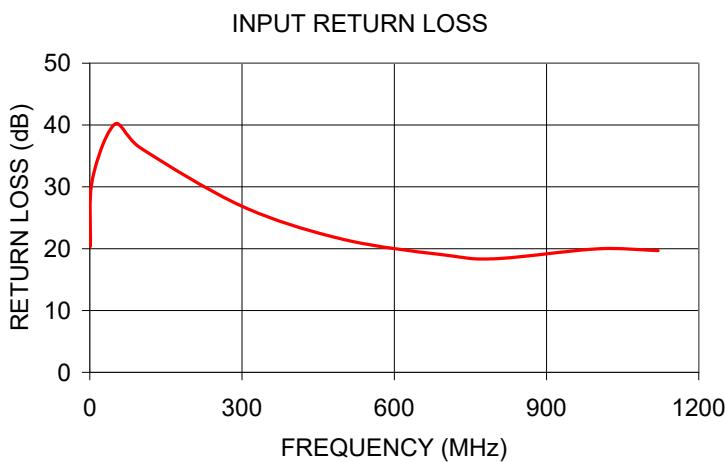
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TYPICAL PERFORMANCE DATA

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)
1	0.63	20.35
5	0.36	31.19
50	0.37	40.18
100	0.39	36.30
300	0.43	26.86
500	0.53	21.49
700	0.64	18.96
800	0.71	18.37
1000	0.89	19.97
1120	1.10	19.69



NOTES

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/terms/viewterm.html

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