



SURFACE MOUNT

RF Transformer

TC4-14+

TC4-14X+
Upgraded Version*

50Ω 200 to 1400 MHz

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

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

FEATURES

- Good Return Loss
- Wideband, 200 to 1400 MHz
- Plastic Base with Leads
- Aqueous Washable



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

APPLICATIONS

- Impedance Matching
- Push-Pull Amplifiers

ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio (Secondary/Primary)			4		Ohms
Frequency Range		200		1400	MHz
Insertion Loss ¹	200-1400		3		dB
	300-1300		2		
	800-1100		1		

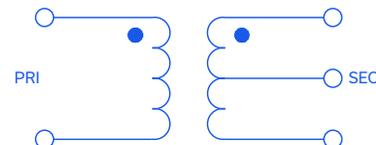
1. Insertion Loss is referenced to mid-band loss, 0.7 dB typ.

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. A



REV. E
ECO-025349
TC4-14+
MCL NY
250428





SURFACE MOUNT

RF Transformer

TC4-14+

Mini-Circuits

50Ω 200 to 1400 MHz

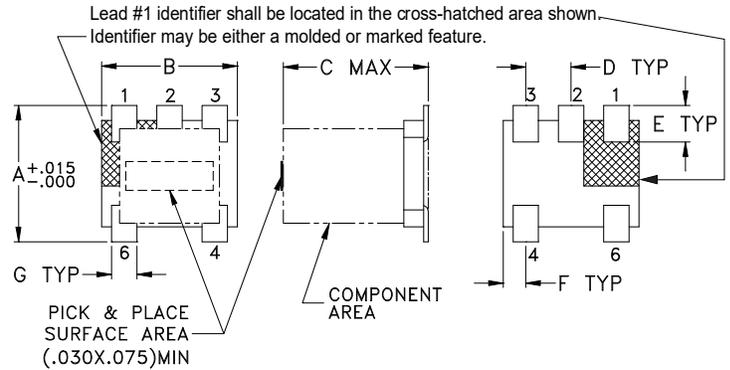
PIN CONNECTIONS

PRIMARY DOT	6
PRIMARY	4
SECONDARY DOT	3
SECONDARY	1
SECONDARY CT	2

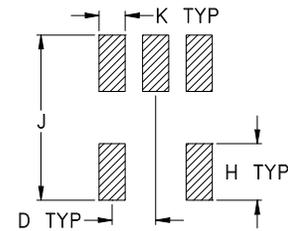
PRODUCT MARKING: N/A

DEMOBOARD MCL P/N: TB-TC4-14+

OUTLINE DRAWING



PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

OUTLINE DIMENSIONS (Inch mm)

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

TAPE & REEL INFORMATION: F17



SURFACE MOUNT

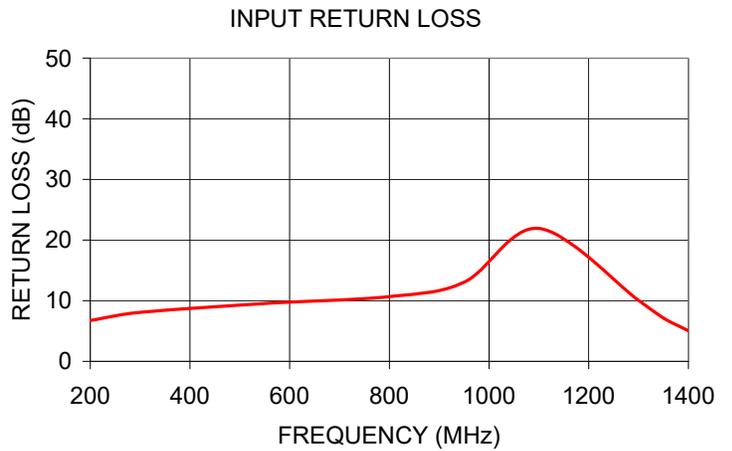
RF Transformer

TC4-14+

50Ω 200 to 1400 MHz

TYPICAL PERFORMANCE DATA

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)
200.00	1.33	6.74
210.00	1.26	6.88
300.00	1.22	8.07
550.00	0.92	9.54
800.00	0.88	10.68
950.00	0.82	13.05
1100.00	0.70	21.93
1300.00	1.53	10.04
1350.00	1.77	7.15
1400.00	2.77	5.05



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-Circuits 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-Circuits' website at www.minicircuits.com/terms/viewterm.html

