



SURFACE MOUNT

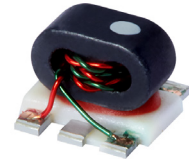
RF Transformer

TC4-19LN+

50Ω 10 to 1900 MHz

FEATURES

- Wideband, 10-1900 MHz
- Balanced transmission line with secondary center tap
- 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

- PCS
- Cellular

ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio (Secondary/Primary)			4		Ohm
Frequency Range		10		1900	MHz
Insertion Loss*	10-1900		3		Deg.
	20-1000		2		
	30-700		1		
Phase Unbalance	30-700		4		dB
	20-1000		6		
Amplitude Unbalance	30-700		0.3		dB
	20-1000		0.5		

* Insertion Loss is referenced to mid-band loss, 1.0 dB typ

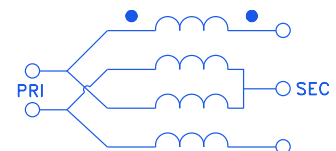
MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.25W
DC Current	150** mA

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

** Equal current applied through center tap to secondary dot & secondary, need DC blocking capacitors on primary dot & primary.

CONFIG. H





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Mini-Circuits

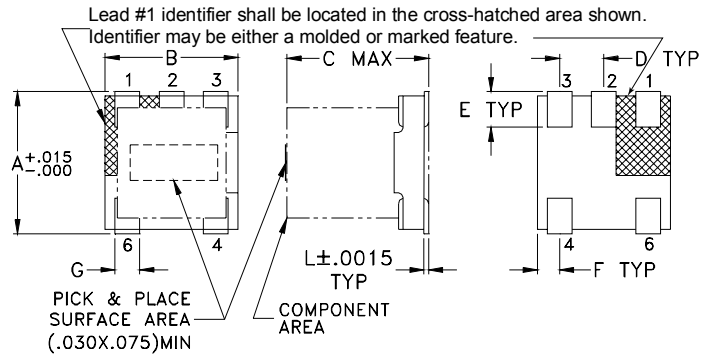
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PIN CONNECTIONS

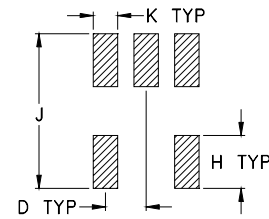
Function	Pin Number
PRIMARY DOT	6
PRIMARY	4
SECONDARY DOT	3
SECONDARY	1
SECONDARY CT	2

PRODUCT MARKING: N/A

OUTLINE DRAWING



PCB Land Pattern



Suggested Layout,
Tolerance to be within ± 0.002

OUTLINE DIMENSIONS (Inch/mm)

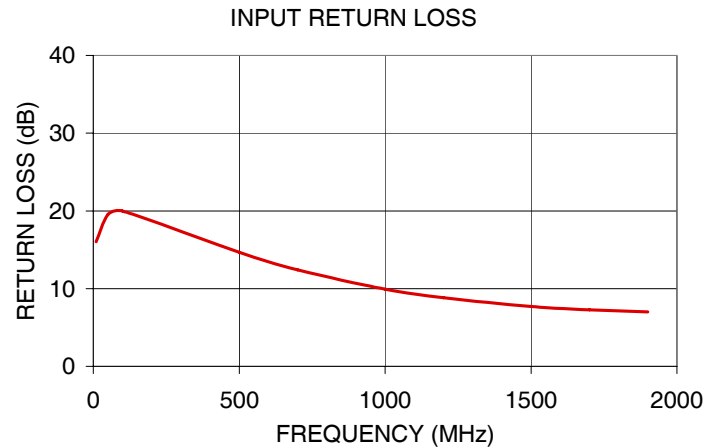
A	B	C	D	E	F
.150	.150	.160	.050	.040	.025
3.81	3.81	4.06	1.27	1.02	0.64
G	H	J	K		wt
.028	.065	.190	.030		grams
0.71	1.65	4.83	0.76		0.15

TAPE & REEL INFORMATION: F17



TYPICAL PERFORMANCE DATA

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (deg.)
10.00	1.24	16.03	0.06	0.03
50.00	1.04	19.54	0.04	0.39
100.00	0.99	19.98	0.01	0.83
500.00	1.13	14.68	0.02	3.20
700.00	1.24	12.43	0.17	3.49
1000.00	1.55	9.92	0.49	3.74
1200.00	1.80	8.83	0.85	3.53
1500.00	2.34	7.69	1.47	3.59
1700.00	2.64	7.26	1.74	4.43
1900.00	2.99	7.01	1.95	4.99



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