



SURFACE MOUNT

# RF Transformer

## TC4-19+

TC4-19X+  
Upgraded Version\*

Mini-Circuits

50Ω 10 to 1900 MHz

- \*Addition of Top Hat® feature Benefits**
- Allows faster pick-and-place
  - Enables visual identification marking

### 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		
Frequency Range		10		1900	MHz
Insertion Loss*	10-1900		3		dB
	20-1000		2		
	30-700		1		
Amplitude Unbalance	30-700		0.3		dB
	20-1000		0.5		
Phase Unbalance	30-700		4		Degree
	20-1000		6		

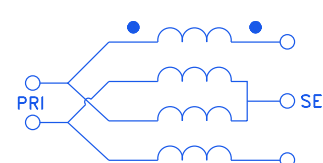
\* Insertion Loss is referenced to mid-band loss, 1.0 dB typ.

### MAXIMUM RATINGS

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

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

### CONFIG. H



REV. B  
ECO-015303  
TC4-19+  
MCL NY  
220906



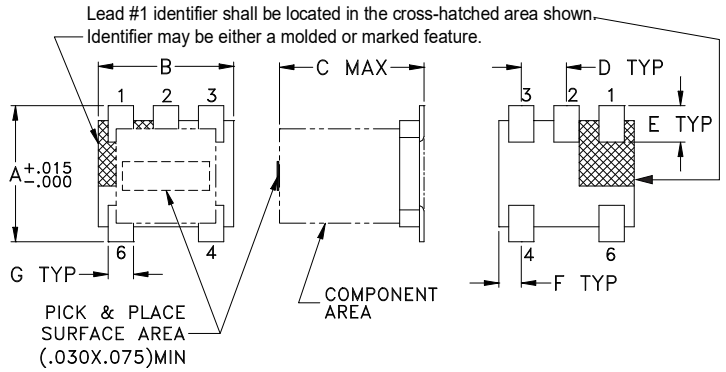


**PIN CONNECTIONS**

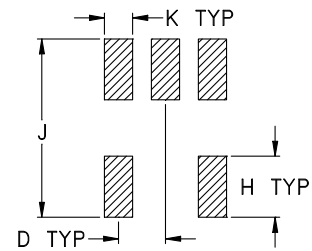
PRIMARY DOT	6
PRIMARY	4
SECONDARY DOT	3
SECONDARY	1
SECONDARY CT	2

**PRODUCT MARKING:** NA

**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**