



top hat  
SURFACE MOUNT  
RF Transformer

TC2-72T+

50Ω 10 to 700 MHz

**FEATURES**

- Wideband, 10 to 700 MHz
- Good return loss
- Excellent amplitude unbalance, 0.5 dB typ. and phase unbalance, 1.3 deg typ. in 1 dB bandwidth
- Plastic base with leads
- Aqueous washable



Generic photo used for illustration purposes only

CASE STYLE: AT1521

**+RoHS Compliant**

The +Suffix identifies RoHS Compliance.  
See our website for methodologies and qualifications

**APPLICATIONS**

- Impedance matching
- Balanced to unbalanced transformation
- Push-pull amplifier

**ELECTRICAL SPECIFICATIONS AT 25°C**

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio (primary/secondary)			2		
Frequency Range		10	—	700	MHz
Insertion Loss*	10 - 400	—	0.4	1.3	dB
	400 - 700	—	0.9	1.8	
Amplitude Unbalance	10 - 400	—	0.5	0.8	dB
	400 - 700	—	1.3	2.0	
Phase Unbalance	10 - 400	—	1.5	7.0	Degree
	400 - 700	—	2.25	9.0	

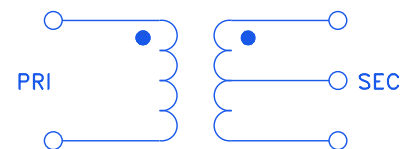
\* Insertion Loss is referenced to mid-band loss, 0.5 dB.

**MAXIMUM RATINGS**

Parameter	Ratings
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	250mW
DC Current	30mA

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

**CONFIG. A**



REV. C  
ECO-014884  
TC2-72T+  
MCL NY  
220829



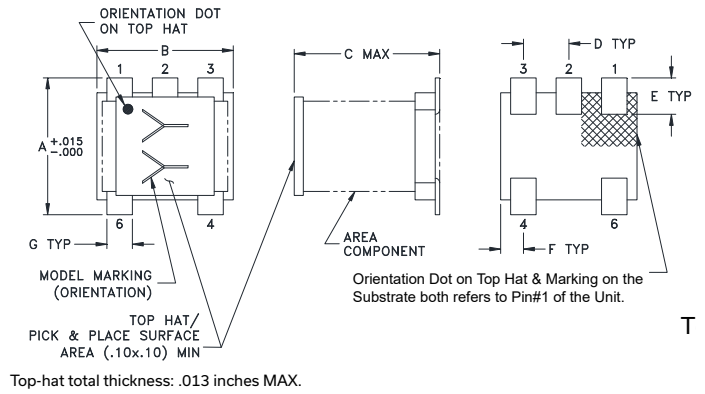


### PIN CONNECTIONS

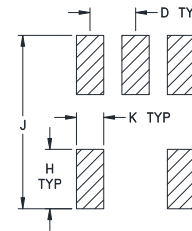
PRIMARY DOT	6
PRIMARY	4
SECONDARY DOT	1
SECONDARY	3
SECONDARY CT	2

**PRODUCT MARKING:** AH

### OUTLINE DRAWING



### PCB Land Pattern



Suggested Layout,  
Tolerance to be within  $\pm .002$

### OUTLINE DIMENSIONS (Inch/mm)

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

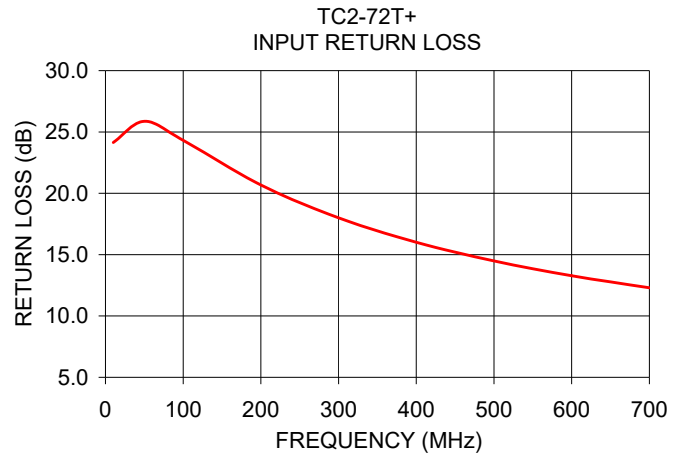
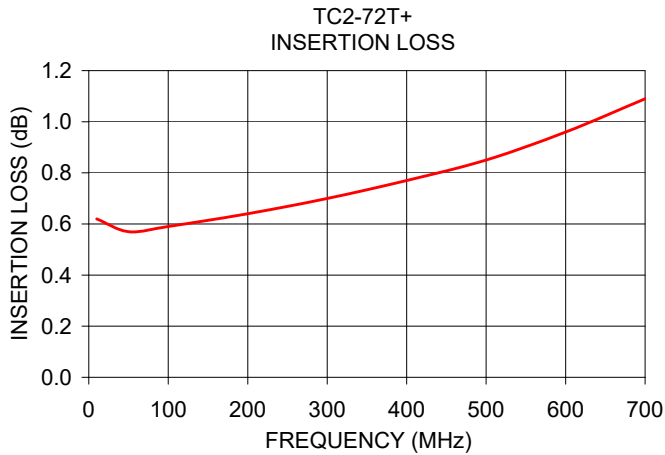
Weight: 0.15 grams

### TAPE & REEL INFORMATION: F17



### TYPICAL PERFORMANCE DATA

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE (Deg.)
10.00	0.62	24.14	0.00	0.01
50.00	0.57	25.87	0.01	0.24
100.00	0.59	24.32	0.03	0.52
200.00	0.64	20.68	0.11	1.01
300.00	0.70	18.00	0.26	1.53
400.00	0.77	16.01	0.46	2.04
500.00	0.85	14.49	0.71	2.49
600.00	0.96	13.28	1.02	2.88
700.00	1.09	12.30	1.39	3.17



- 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](http://www.minicircuits.com/terms/viewterm.html)