



SURFACE MOUNT



RF Transformer

TC2-72T-5+

50Ω 10 to 700 MHz

FEATURES

- Wideband, 10 to 700 MHz
- Good Return Loss
- Excellent Amplitude Unbalance, 2.0 dB Typ. and Phase Unbalance, 10.0 deg Typ.
- 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 Amplifiers

ELECTRICAL SPECIFICATIONS AT -40°C TO +105°C, UNLESS NOTED OTHERWISE¹

Parameter		Frequency (MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio (Secondary/Primary)			2			
Frequency Range			10		700	MHz
Insertion Loss	-40°C to +70°C	10-400			1.5	dB
		400-700			2.0	
	+70°C to +105°C	100-400			2.0	
		10 - 700			2.5	
Amplitude Unbalance		10 - 700		2.0		dB
Phase Unbalance		10 - 700		10.0		Degree
Return Loss		10-400	10			dB
		400-700	8			

1. With 186 mA typ. DC current into Secondary CT equally distributed.

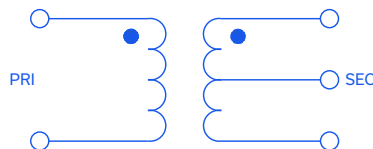
ABSOLUTE MAXIMUM RATINGS²

Parameter	Ratings
Operating Temperature	-40°C to +105°C
Storage Temperature	-55°C to +100°C
RF Power	250 mW
DC Current	200 mA ³

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

3. Into Secondary CT equally distributed.

CONFIG. A





Mini-Circuits

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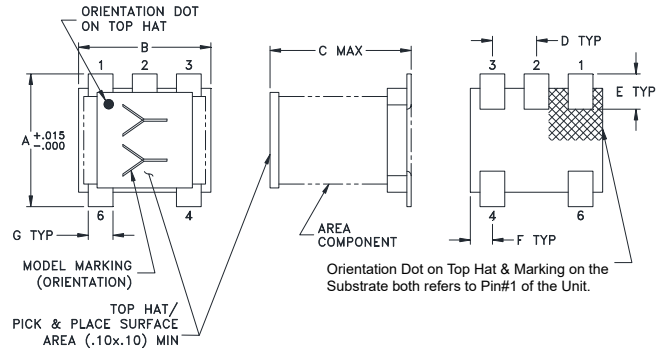
PIN CONNECTIONS

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

PRODUCT MARKING: AH

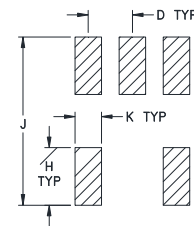
EVAL BOARD: TB-145

OUTLINE DRAWING



Top-hat total thickness: .013 inches MAX.

PCB Land Pattern



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

Notes

1. Case Material: Plastic
2. Termination Finish: Tin plate over Nickel plate.
3. Lead#1 identifier shall be located in the cross-hatched area shown, on bottom view.
Identifier may be either a molded or marked feature.
4. Top-Hat total thickness: .013 inches max.

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

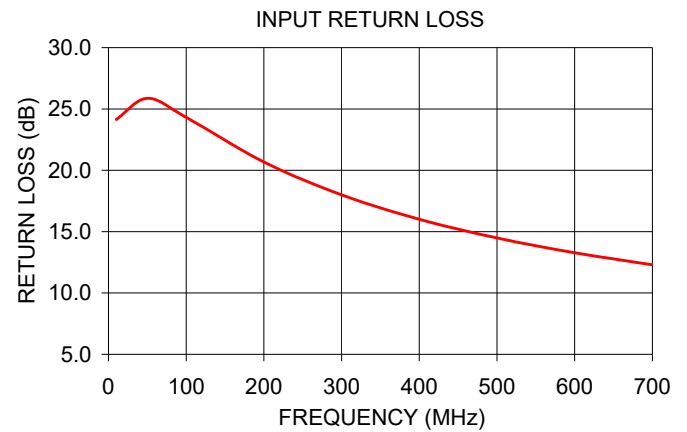
Weight: 0.15 grams

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