Surface Mount

RF Transformer

50Ω 2 to 500 MHz

TCM8-1X+
Upgraded Version*
*Addition of Top-hat® feature
Benefits
• Allows faster pick-and-place
• Enables visual identification marking

TCM8-1+



Generic photo used for illustration purposes only

CASE STYLE: DB714

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500
13"	1000, 2000

Features

- wide bandwidth, 2 to 500 MHz
- good return loss
- excellent amplitude unbalance, 0.1 dB typ. and phase unbalance, 2 deg typ. in 1 dB bandwidth
- plastic base with solder plated leads
- aqueous washable

Applications

- impedance matching

Electrical Specifications

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Impedance Ratio *(secondary/primary)*			8		Ohm
Frequency Range		2		500	MHz
Insertion Loss*	2 - 500	—	3	—	dB
	5 - 400	—	2	—	
	10 - 100	—	1	—	

* Insertion Loss is referenced to mid-band loss, 0.8 dB typ.

Maximum Ratings

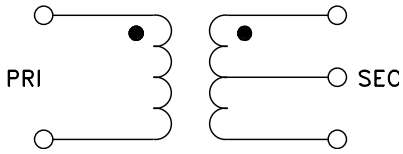
Parameter	Ratings
Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	0.25W
DC Current	30mA

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

Pin Connections

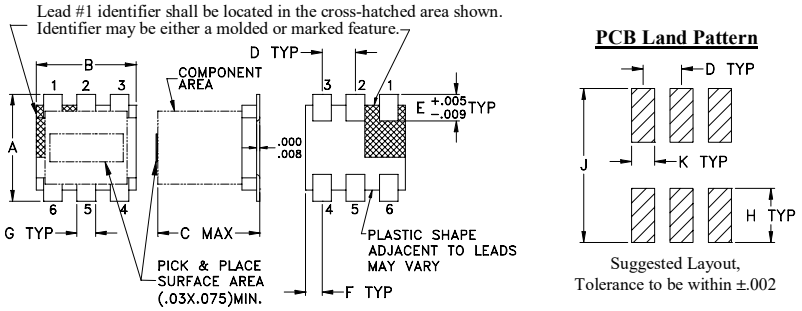
Function	Pin Number
PRIMARY DOT	6
PRIMARY	4
SECONDARY DOT	3
SECONDARY	1
SECONDARY CT	2
NOT USED	5

Config. A



REV. G
ECO-006688
TCM8-1+
ED-8235/1
IG/CP/AM
210623

Outline Drawing



Outline Dimensions (inch / mm)

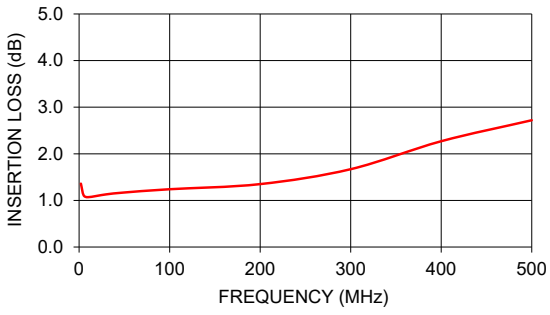
A	B	C	D	E	F
.160	.150	.160	.050	.040	.025
4.06	3.81	4.06	1.27	1.02	0.64

G	H	J	K		wt
.028	.065	.190	.030		grams
0.71	1.65	4.83	0.76		0.15

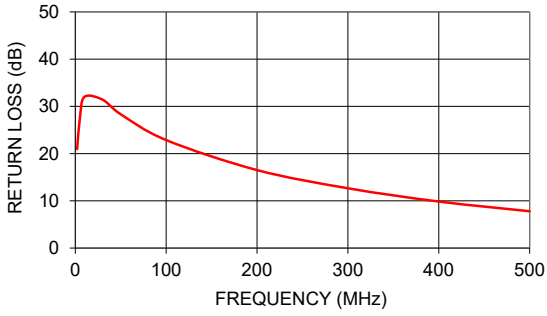
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)
2.00	1.36	20.96
5.00	1.11	27.44
10.00	1.07	32.00
30.00	1.13	31.42
50.00	1.17	28.33
100.00	1.24	22.86
200.00	1.35	16.51
300.00	1.67	12.66
400.00	2.27	9.85
500.00	2.72	7.79

INSERTION LOSS



RETURN LOSS



Additional 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/MCLStore/terms.jsp