

# Surface Mount RF Transformer

## TCM4-19+ TCM4-19

50Ω 10 to 1900 MHz



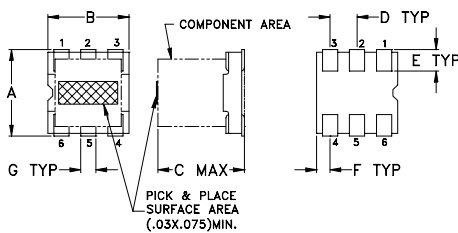
### Maximum Ratings

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

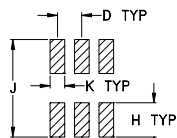
### Pin Connections

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

### Outline Drawing



### PCB Land Pattern

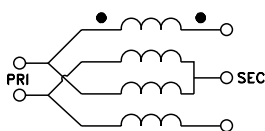


Suggested Layout,  
Tolerance to be within ±.002

### 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

### Config. H



### Features

- wide bandwidth, 10 to 1900 MHz
- balanced transmission line with secondary center tap
- plastic base with solder plated leads
- aqueous washable

### Applications

- PCS
- cellular

CASE STYLE: DB714  
PRICE: \$1.09 ea. QTY (100)

+ RoHS compliant in accordance  
with EU Directive (2002/95/EC)

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

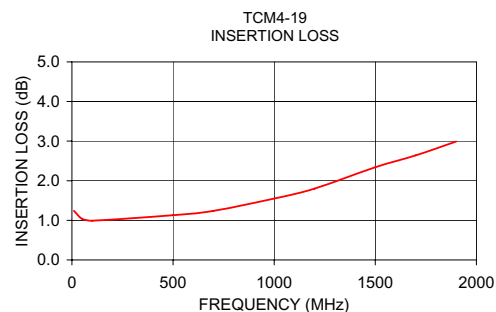
### Transformer Electrical Specifications

Ω RATIO	FREQUENCY (MHz)	INSERTION LOSS*			PHASE UNBALANCE (Deg.) Typ.		AMPLITUDE UNBALANCE (dB) Typ.	
		3 dB MHz	2 dB MHz	1 dB MHz	1 dB bandwidth	2 dB bandwidth	1 dB bandwidth	2 dB bandwidth
4	10-1900	10-1900	20-1000	30-700	4	6	0.3	0.5

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

### Typical Performance Data

FREQUENCY (MHz)	INERTION 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



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REV. C  
M98898  
TCM4-19  
ED-8234A  
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060814