



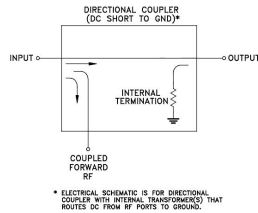
Features

- very flat coupling
- very broadband, multi octave
- temperature stable, LTCC base
- all welded construction
- leads attached for better solderability
- micro miniature coupler
- aqueous washable

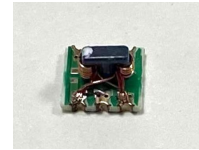
Applications

- VHF/UHF receivers/transmitters
- cellular

Electrical Schematic



JY-DBTC-9-4L+



50Ω, 9dB coupling, 5 to 1000 MHz

Maximum Ratings

Operating Temperature -40°C to 85°C

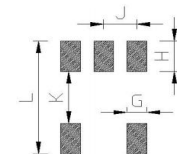
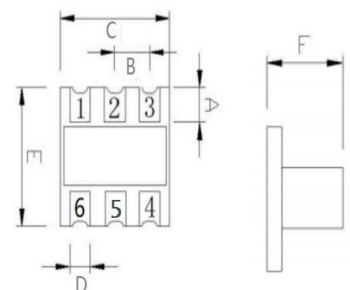
Storage Temperature -55°C to 100°C

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

Pin Connections

INPUT	3
OUTPUT	4
COUPLED	1
GROUND	2
ISOLATE (DO NOT USE)	6
NOT USE	5

Outline Drawing



Suggested Layout, Tolerance to be within ±0.15

Outline Dimensions: Unit (mm)

A	1.00	B	1.27	C	4.20
D	0.76	E	4.08	F	2.80
G	0.76	H	1.30	J	1.27
K	2.21	L	4.81	wt	0.06

Electrical Specifications at 25°C

Parameter	Condition (MHz)	Min.	Typ.	Max.	Unit
Frequency Range	-	5		1000	Mhz
Mainline Loss	5-50 50-500 500-1000	-	1.2 1.2 1.5	2.0 1.8 2.0	dB
Nominal Coupling	5-1000	-	9.0±0.5		dB
Coupling Flatness(±)	5-1000	-		±0.5	dB
Directivity	5-50 50-500 500-1000	17 13 -	21 18 15		dB
VSWR	5-1000		1.2		dB
Input Power	5-50 50-500 500-1000			0.5 1.0 1.0	w

1. Includes theoretical coupled power loss of 0.58 dB at 9 dB coupling
2. For coupled port VSWR above 500 MHz, 1.6:1 typ.

Typical Performance Data

(TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C)

FREQUENCY (GHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
5.0	1.18	8.93	21.62	17.90	24.67	18.40
10.0	1.10	8.89	21.70	19.15	29.04	19.50
50.0	1.07	8.87	21.50	20.07	32.70	20.00
100.0	1.09	8.90	20.99	20.12	31.81	20.27
300.0	1.16	8.93	19.47	20.49	30.43	18.93
500.0	1.20	8.90	17.60	21.02	30.62	16.66
600.0	1.23	8.88	16.50	20.89	30.39	15.36
800.0	1.31	8.86	17.74	20.45	30.31	12.91
900.0	1.37	8.85	14.07	20.06	29.26	11.86
1000.0	1.43	8.86	13.44	19.34	27.16	10.86

