



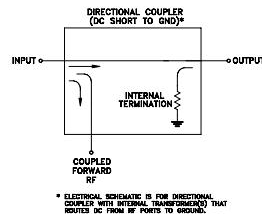
Features

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

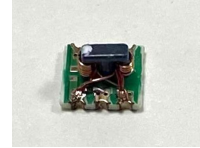
Applications

- VHF/UHF receivers/transmitters
- cellular

Electrical Schematic



JY-DBTC-12-4+



Generic photo used for illustration purposes only

50Ω, 12dB coupling, 5 to 1000 MHz

Maximum Ratings

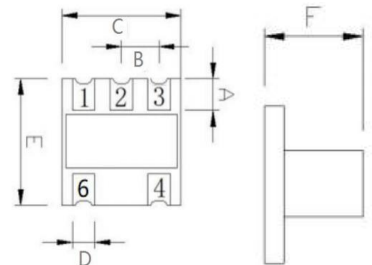
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C

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

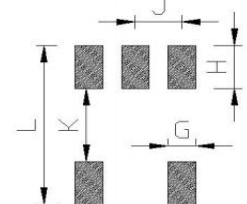
Pin Connections

INPUT	3
OUTPUT	4
COUPLED	1
GROUND	2
ISOLATE (DO NOT USE)Stop welding ground	6

Outline Drawing



PCB Land Pattern



Suggested Layout, Tolerance to be within ± 0.15

Outline Dimensions: Unit (mm)

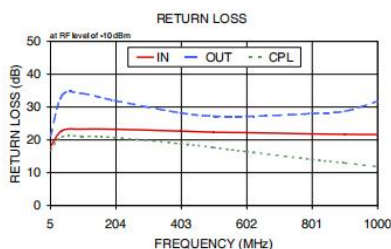
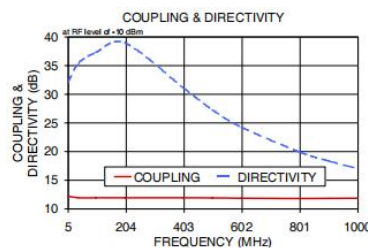
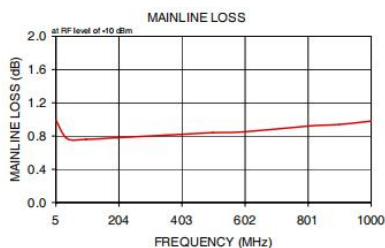
A	1.00	B	1.27	C	4.20
D	0.76	E	4.08	F	2.80
G	0.76	H	1.30	J	1.27
K	2.21	L	4.81	wt	0.06

Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range	-	5	-	1000	Mhz
Mainline Loss	5-50 50-500 500-1000	-	0.9 0.7 1.1	1.8 1.3 1.6	dB
Nominal Coupling	5-1000	-	12.2±0.5		dB
Coupling Flatness(±)	5-1000	-	-	±0.9	dB
Directivity	5-50 50-500 500-1000	22 14 -	33 21 15	-	dB
VSWR	5-1000	-	1.2	-	dB
Input Power	5-50 50-500 500-1000	-	-	0.5 1.0 1.0	W

Typical Performance Data

FREQUENCY (GHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
5.00	0.88	12.07	34.34	19.19	23.31	17.81
10.00	0.79	11.96	34.86	21.25	27.96	19.68
50.00	0.73	11.90	35.53	22.99	35.09	21.01
100.00	0.75	11.93	37.41	22.94	34.58	21.11
500.00	0.85	11.99	25.82	22.00	26.19	18.96
600.00	0.88	11.99	22.32	21.56	25.58	17.94
800.00	0.95	12.03	17.75	20.94	25.46	15.62
900.00	1.00	12.07	16.15	20.79	26.14	14.55
1000.00	1.06	12.13	14.74	20.48	26.70	13.43



Suggested PCB Layout

