

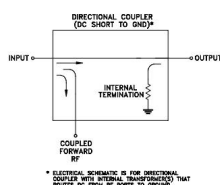
Features

- 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

- CATV

Electrical Schematic



JY-DBTC-20-4+



Generic photo used for illustration purposes only

75Ω, 20dB coupling, 5 to 1250 MHz

Electrical Specifications at 25°C

Parameter	Condition (MHz)	Min.	Typ.	Max.	Unit
Frequency Range	-	5		1250	Mhz
Mainline Loss	5-50	-	0.4	0.7	dB
	50-500		0.6	0.9	
	500-1000		0.8	1.2	
	1000-1250		1.1	1.5	
Nominal Coupling	5-1250	-	20.5±0.5		dB
Coupling Flatness(±)	5-1250	-		±0.9	dB
Directivity	5-50	16	20		dB
	50-500	13	19		
	500-1000	7	11		
	1000-1250	6	9		
VSWR	5-1000		1.4		dB
Input Power	5-50			0.5	w
	50-500			1.0	
	500-1000			1.0	
	1000-1250			1.0	

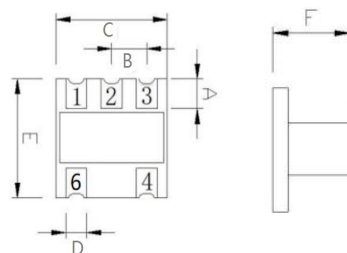
Maximum Ratings

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.	

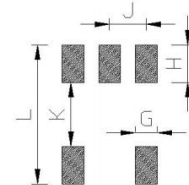
Pin Connections

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

Outline Drawing



PCB Land Pattern



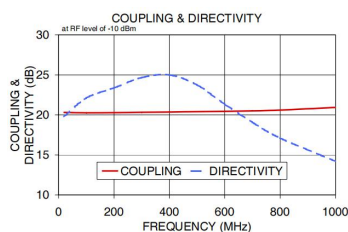
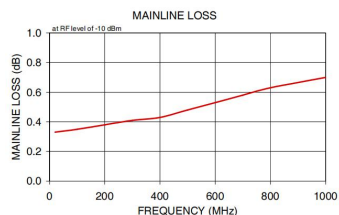
Suggested Layout, Tolerance to be within ±0.15

Outline Dimensions: Unit (mm)

A	1.00	B	1.27	C	4.20
D	0.76	E	4.08	F	2.90
G	0.76	H	1.30	J	1.27
K	2.21	L	4.81	wt	0.06

Typical Performance Data

FREQUENCY (GHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
20	0.33	20.30	19.79	28.00	30.48	26.85
100	0.35	20.25	22.11	29.28	31.80	27.18
200	0.38	20.28	23.36	29.12	30.13	24.16
300	0.41	20.32	24.66	27.95	28.09	21.11
400	0.43	20.36	25.00	27.01	26.54	19.23
500	0.48	20.40	23.74	26.41	25.97	170.30
600	0.53	20.43	21.33	25.99	25.74	15.69
700	0.58	20.50	19.06	25.78	26.00	14.31
800	0.63	20.59	17.10	26.16	26.88	13.07
1000	0.70	20.94	14.20	28.41	29.64	11.03
1250	0.80	21.00	14.90	28.95	29.98	12.06



Suggested PCB Layout

