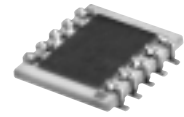


Bi-Directional Coupler

BDCA-22-16

High Power, 50Ω 800 to 1600 MHz



CASE STYLE: SM1L
PRICE: \$5.95 ea.
QTY.: (10-49)

Maximum Ratings

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

Pin Configuration

INPUT	1
OUTPUT	6
COUPLED (forward)	10
COUPLED (reverse)	5
GROUND	2,3,4,7,8,9

Features

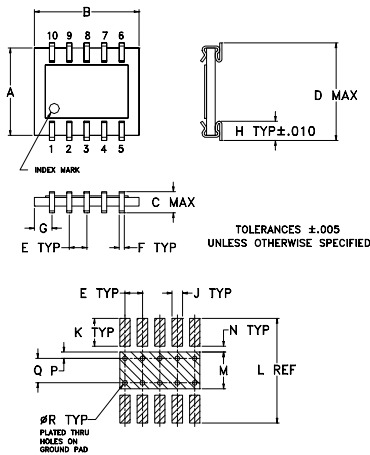
- wideband, 800-1600 MHz
- excellent VSWR, 1.15:1 typ., all ports
- good flatness, ±0.7 dB typ.
- high power, 42W at 1 GHz
- hermetically sealed
- minimal variation with temperature
- low profile, 0.07" height

Applications

- GSM, cellular
- GPS
- ISM



Outline Drawing



SUGGESTED LAYOUT FOR PCB PATTERN
ADJACENT GROUND PINS SHALL BE CONNECTED TO EACH OTHER AND TO GROUND PAD

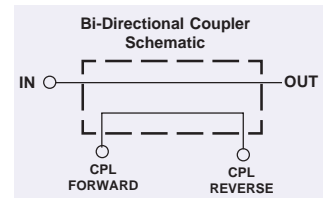
Outline Dimensions (Inch/mm)

A	B	C	D	E	F	G	H	J
.250	.300	.070	.320	.050	.015	.050	.060	.030
6.35	7.62	1.78	8.12	1.27	.38	1.27	1.52	.76
K	L	M	N	P	Q	R	wt.	
.080	.330	.100	.020	.015	.070	.014	grams	
2.03	8.38	2.54	.51	.38	1.78	.36		

Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS (dB)				DIRECTIVITY (dB)			VSWR (:1)	POWER* INPUT (W)	THERMAL RESISTANCE θjc (°C/W)
	Nom.	Max. Flatness	L Typ.	M° Typ.	U Typ.	L Typ.	M° Typ.	U Typ.				
800-1600	22.1±2.0	±1.6		0.4	0.7		23	12		1.15	35**	26
800-1000	22.7±0.8	±0.9		0.3	0.6		24	17		1.15	42*	26
1100-1600	21.5±0.7	±0.7		0.4	0.7		22	12		1.15	35**	26

° When only specification for M range given, specification applies to entire frequency range.
* Derate linearly to 18W at 100°C
** Derate linearly to 15W at 100°C



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) In-Out	Coupling (dB)		Directivity (dB)		Return Loss (dB)			
		In-CPL	Out-Term	Out-CPL	In-Term	In	Out	CPL	Term
800.00	0.25	23.30	23.28	23.58	21.88	25.59	26.07	26.68	25.37
900.00	0.29	22.61	22.61	23.15	21.19	24.76	25.21	25.76	24.63
1000.00	0.32	22.07	22.06	22.43	20.23	24.08	24.47	24.82	23.96
1100.00	0.34	21.63	21.63	21.96	19.53	23.55	23.73	24.06	23.48
1200.00	0.33	21.30	21.30	21.20	18.49	23.21	23.09	23.35	23.16
1300.00	0.35	21.10	21.09	20.49	17.65	23.05	22.60	22.79	23.02
1400.00	0.37	21.00	20.98	19.89	16.92	23.13	22.35	22.41	23.11
1500.00	0.39	21.00	20.97	19.36	16.24	23.46	22.30	22.23	23.42
1600.00	0.40	21.08	21.05	18.90	15.55	24.17	22.50	22.36	24.14
1700.00	0.40	21.24	21.21	18.55	14.93	25.39	23.05	22.81	25.34

