

Bi-Directional Coupler

Features

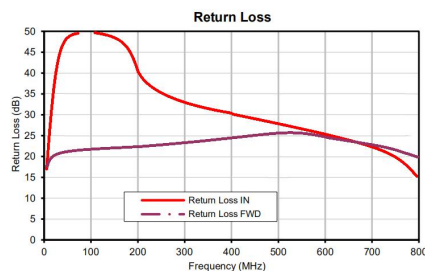
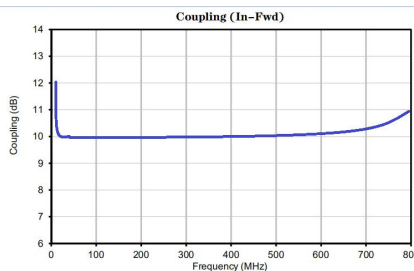
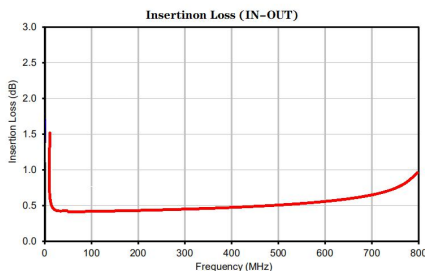
- wideband, 10 to 600 MHz
- high power, 35 W max. with output load VSWR 2.0 max
- high power, 10 W max. with output open or short
- low mainline loss, 0.5 dB typ.
- good VSWR, 1.18 typ.

Applications

- military mobile

Typical Performance Data

FREQUENCY (MHz)	Mainline Loss (dB) IN-OUT	Coupling (dB) In-Cpl Fwd	Return Loss (dB)	
			In	Cpl Fwd
10.0	-0.476	-9.932	-30.958	-19.342
100.0	-0.370	-9.937	-43.687	-19.921
150.0	-0.373	-9.976	-41.138	-21.159
200.0	-0.383	-10.008	-28.525	-22.258
250.0	-0.427	-10.026	-24.858	-21.808
300.0	-0.477	-10.129	-25.413	-21.290
400.0	-0.593	-10.193	-20.830	-25.248
512.0	-0.798	-10.219	-18.327	-29.006
600.0	-0.781	-10.226	-19.189	-24.495



Maximum Ratings

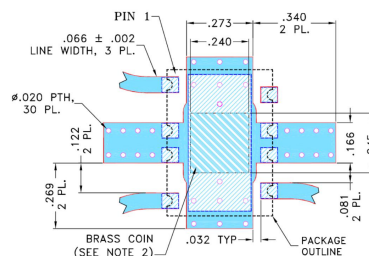
Operating Temperature -40°C to 80°C

Storage Temperature -40°C to 100°C

RF Power 35W

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

PCB Layout

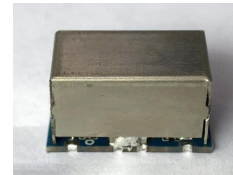


NOTES:

1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. SUGGEST TO PROVIDE BRASS COIN FOR BETTER HEAT TRANSFER FROM THE UNIT. OTHERWISE PROVIDE ARRAY OF THERMAL VIAS ADEQUATE TO LIMIT TEMPERATURE OF GROUND CONNECTIONS UNDER THE UNIT TO 65°C.
3. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

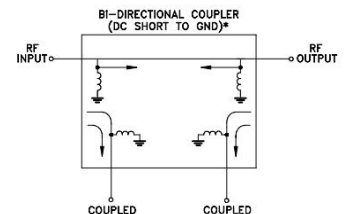
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK
- DENOTES BRASS COIN.

JY-SYDC-10-52VHP+



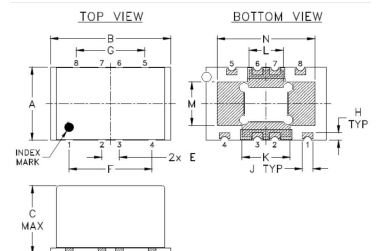
10 dB Coupling 30 to 512 MHz 35 Watt

Electrical Schematic

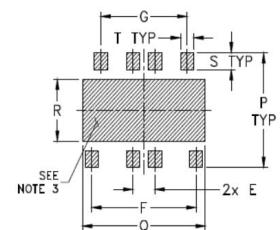


Outline Drawing

Pin Connections	
Input	1
Output	8
Coupled (Forward)	4
Coupled (Reverse)	5
Ground	2,3,6,7



PCB Land Pattern



Dimensions are in metric (mm)					
A	B	C	E	F	G
11.0	17.53	10.54	2.54	12.09	10.01
H	J	K	L	M	N
1.14	1.52	7.01	4.93	6.53	14.22
P	Q	R	S	T	
12.07	14.25	6.55	1.75	1.55	