

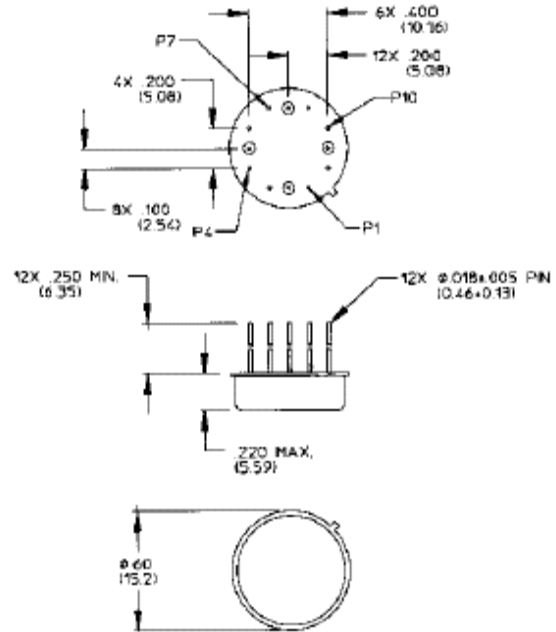
## Features

- Constant Coupling - Within  $\pm 0.5$  dB Max
- MIL-STD-202 Screening Available

## TO-8-2

## Description

Bi-Directional couplers offer the ability to couple the power in two directions while maintaining directivity.



Bottom of Case is AC Ground  
 Dimensions in  $\mu$  are in mm  
 Unless Otherwise Noted: XXX =  $\pm 0.010$  (XX =  $\pm 0.25$ )  
 XX =  $\pm 0.02$  (X =  $\pm 0.5$ )

## Pin Configuration

Pin No.	Function	Pin No.	Function
1	GND	7	GND
2	B	8	A
3	GND	9	GND
4	GND	10	GND
5	C	11	D
6	GND	12	GND

## Electrical Specifications<sup>1</sup>: $T_A = -55^\circ\text{C}$ to $+85^\circ\text{C}$

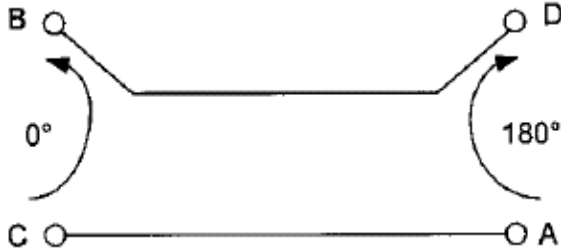
Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Coupling	Input to Output	—	dB	9.8	10.8	11.8
Coupling Flatness	—	—	dB	—	—	$\pm 0.5$
VSWR	All Ports	10 - 500 MHz 25 - 200 MHz	Ratio Ratio	— —	— —	1.8:1 1.5:1
Directivity	Both Directions	—	dB	17	—	—
Main Line Loss <sup>2</sup>	—	—	dB	—	—	1.6
Input Power	—	—	Watt	—	—	1.0

1. All specifications apply with 50 ohm source and load impedance.

2. Includes theoretical power split.

This product contains elements protected by United States Patent number 3,426,298.

## Functional Diagram

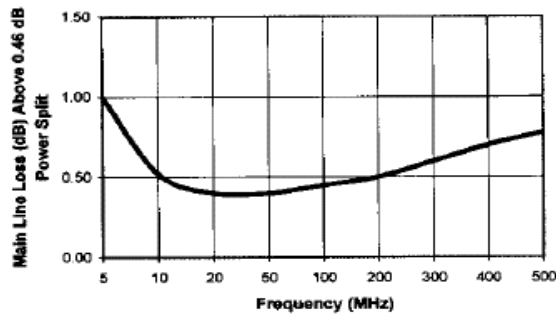


## Ordering Information

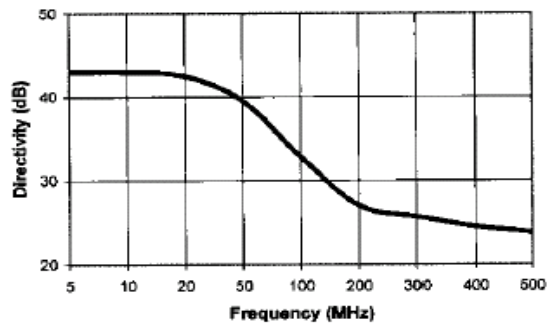
Part Number	Package
CH-138 PIN	TO-8-2

## Typical Performance Curves

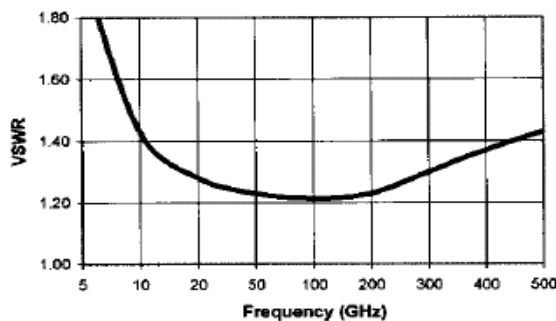
**Main Line Loss**



**Directivity**



**VSWR**



**Coupling**

