

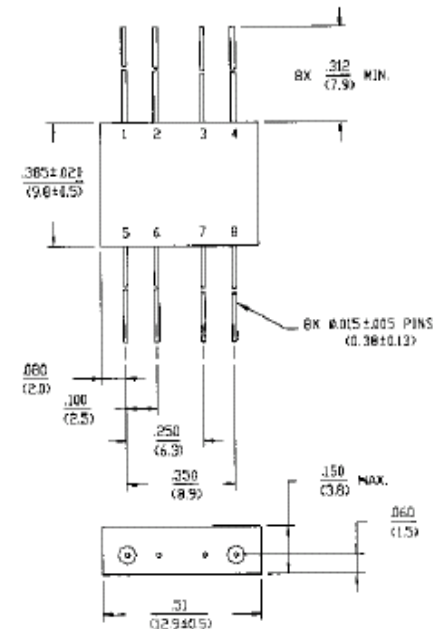
### Features

- 1° Phase Balance Maximum
- 35 dB Typical Midband Isolation
- 1.1 Typical Midband VSWR
- VSWR: 1.2:1 Typical Midband
- Impedance: 50 Ohms Nominal
- Maximum Power Rating or Input Power: 1W Max.
- Internal Load Dissipation: 0.05 mW Max.
- MIL-STD-202 Screening Available

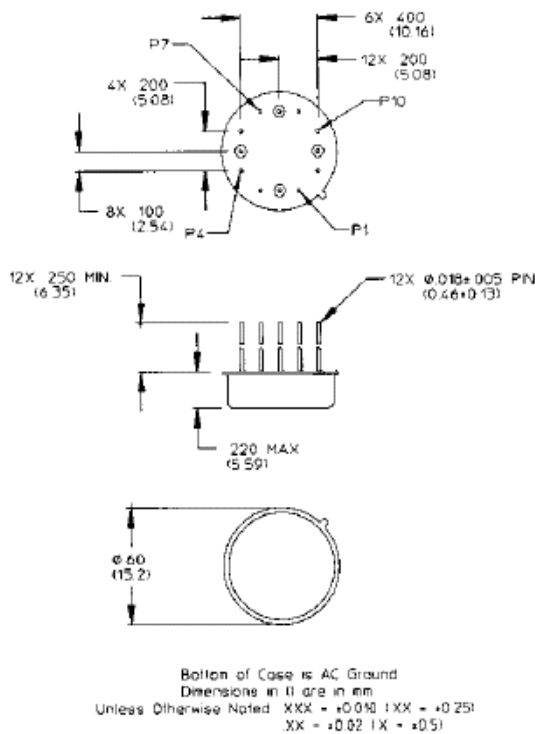
### Description

A Power Divider is ideally a lossless reciprocal device which can also perform vector summation of two or more signals and thus is sometimes called a power combiner or summer.

### FP-2 (DS-109)



### TO-8-2 (DS-319)



### Pin Configuration (DS-109)

Pin No.	Function	Pin No.	Function
1	Σ	5	GND
2	GND	6	GND
3	GND	7	GND
4	Output C	8	Output D

### Pin Configuration (DS-319)

Pin No.	Function	Pin No.	Function
1	GND	7	GND
2	Output D	8	Output C
3	GND	9	GND
4	GND	10	GND
5	Σ IN	11	GND
6	GND	12	GND

## DS-109 Electrical Specifications<sup>1</sup>: $T_A = -55^{\circ}\text{C}$ to $+85^{\circ}\text{C}$

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Insertion Loss	Less Coupling	10 - 500 MHz	dB	—	—	0.6
Isolation	—	10 - 500 MHz	dB	25	—	—
Amplitude Balance	—	10 - 500 MHz	dB	—	—	0.15
Phase Balance	—	10 - 500 MHz	°	—	—	1
VSWR	All Ports	10 - 500 MHz	Ratio	—	—	1.3:1

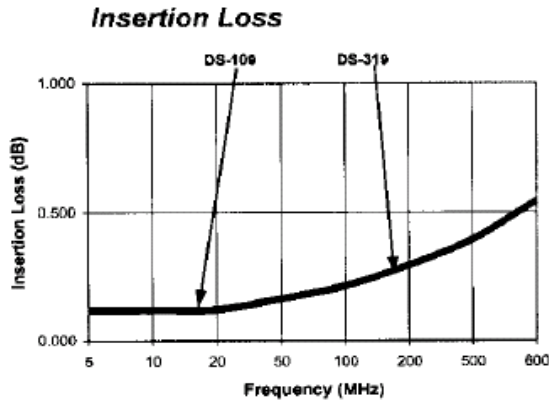
## DS-319 Electrical Specifications<sup>1</sup>: $T_A = -55^{\circ}\text{C}$ to $+85^{\circ}\text{C}$

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Insertion Loss	Less Coupling	10 - 200 MHz	dB	—	—	0.6
		10 - 500 MHz	dB	—	—	0.9
Isolation	—	10 - 500 MHz	dB	25	—	—
Amplitude Balance	—	10 - 200 MHz	dB	—	—	0.15
		10 - 500 MHz	dB	—	—	0.2
Phase Balance	—	10 - 500 MHz	°	—	—	1
VSWR	All Ports	10 - 200 MHz	Ratio	—	—	1.3:1
		10 - 500 MHz	Ratio	—	—	1.6:1

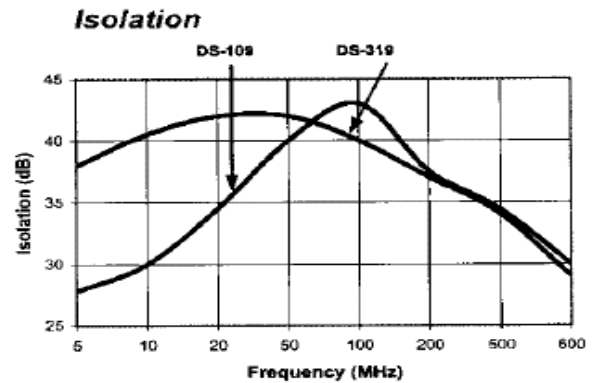
1. All specifications apply with 50 ohm source and load impedance.

## Typical Performance Curves

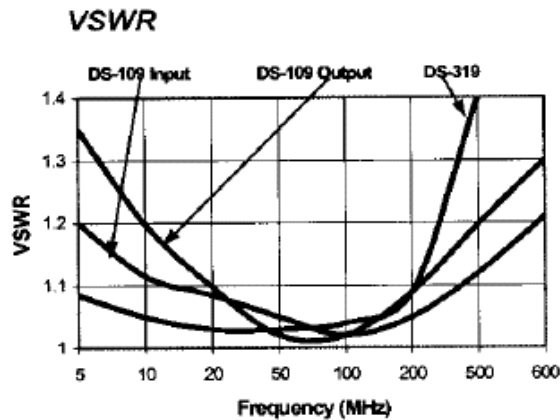
Insertion Loss - Ports  $\Sigma$ -C,  $\Sigma$ -D



Isolation - Ports C-D



VSWR



## Ordering Information

Part Number	Package
DS-109 PIN	FP-2
DS-319 PIN	TO-8-2