

## Two-Way Power Divider, 10 - 500 MHz

Rev. V3

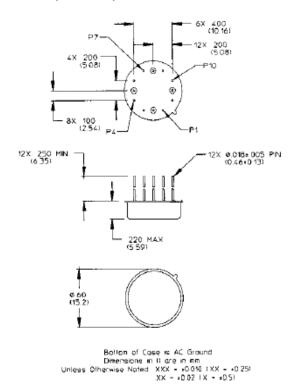
#### **Features**

- 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

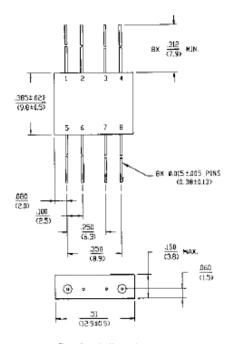
#### **Description**

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.

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



### FP-2 (DS-109)



| Dinonsions M C) are at nn | Unloss Otherwise Noted | XXX = ±00(0 CXX = ±0.25) | XX = ±0.8 CX = ±0.5) | VEIGHT (APPRIX) 0.09 DUNG\$ 2.55 GRAMS

## 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	ΣΙΝ	11	GND
6	GND	12	GND

Commitment to produce in volume is not guaranteed.

- North America Tel: 800.366.2266 Europe Tel: +353.21.244.6400
- India Tel: +91.80.4155721
- China Tel: +86.21.2407.1588

# DS-109 / DS-319



Two-Way Power Divider, 10 - 500 MHz

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## DS-109 Electrical Specifications<sup>1</sup>: $T_A = -55$ °C to +85°C

Parameter	Test Conditions	Frequency	Units	Min	Тур	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	o	_	_	1
VSWR	All Ports	10 - 500 MHz	Ratio	_	_	1.3:1

## DS-319 Electrical Specifications<sup>1</sup>: $T_A = -55$ °C to +85°C

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

<sup>1.</sup> All specifications apply with 50 ohm source and load impedance.

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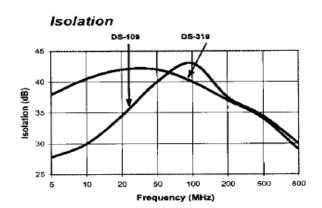
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### **Typical Performance Curves**

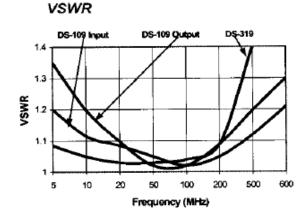
Insertion Loss - Ports Σ-C, Σ-D

## Insertion Loss DS-109 Insertion Loss (dB) 0.500 0.000 600 50 500 Frequency (MHz)

#### Isolation - Ports C-D



#### **VSWR**



## **Ordering Information**

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

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