

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

Rev. V3

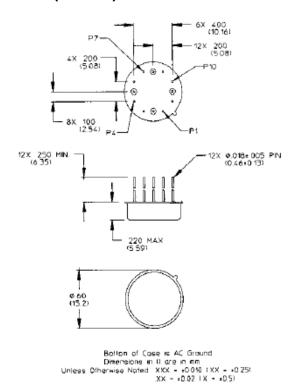
#### **Features**

- 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

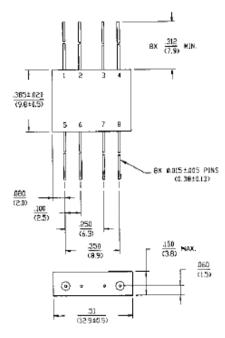
### **Description**

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)



Dinansions in () are in an Unioss Otherwise Noted (XXX = ±000) (XXX = ±0.25) (XX = ±0.05) VEIGHT (APPRING 0.09 DUNCES 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

ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

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# DS-109 / DS-319



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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

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

Solutions has under development. Performance is based on engineering tests. Specifications are

typical. Mechanical outline has been fixed. Engineering samples

Commitment to produce in volume is not gui

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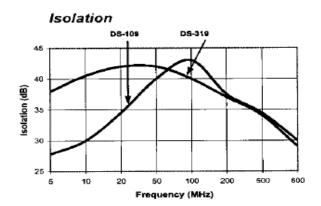
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### **Typical Performance Curves**

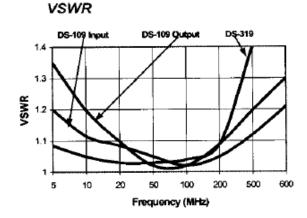
Insertion Loss - Ports Σ-C, Σ-D

## Insertion Loss DS-109 Insertion Loss (dB) 0.500 0.000 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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