

# QHF-23A SERIES – 90° POWER DIVIDERS/COMBINERS

## TECHNICAL FEATURE

### FEATURES

- 1 to 1250 MHz
- Low Insertion Loss
- Lumped Element Circuits
- Low Profile Hermetic Package

Phasing Diagram - A				
	1	2	3	4
1		0°	-90°	Isol.
2	0°		Isol.	-90°
3	-90°	Isol.		0°
4	Isol.	-90°	0°	

### PRINCIPAL SPECIFICATIONS

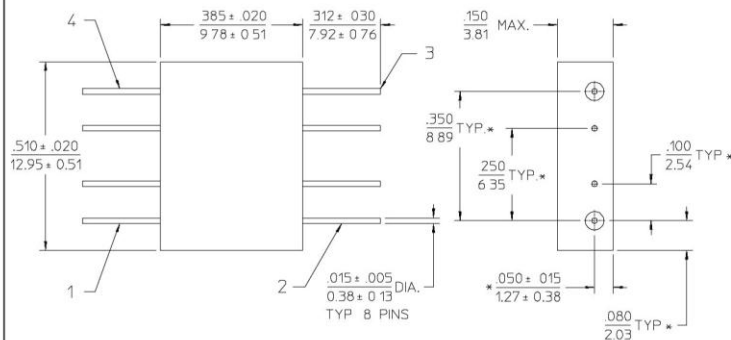
Model Number	Center Frequency	Frequency Performance
QHF-23A-160	160 MHz	107 - 214 MHz
QHF-23A-1000	1000 MHz	750 - 1250 MHz
QHF-23A-***B	1 to 300 MHz	Octave

For complete Model Number replace \*\*\* with desired Center Frequency in MHz.

### GENERAL SPECIFICATIONS

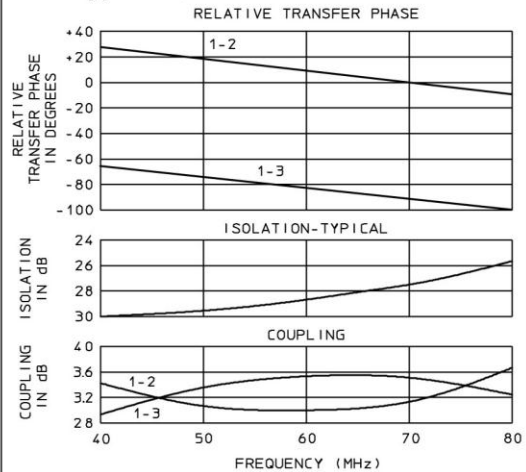
Coupling: -3 dB nom.  
 Impedance: 50 Ω nom.  
 Isolation:  
     < 300 MHz: 20 dB min., 25 dB typ.  
     > 300 MHz: 18 dB min., 22 dB typ.  
 Insertion Loss:  
     < 75 MHz: 0.5 dB max., 0.3 dB typ.  
     > 75 MHz: 0.75 dB max., 0.5 dB typ.  
 Phase Tolerance: 90° ± 3° max.  
 Amplitude Balance: 1 dB max.  
 VSWR (In/Out):  
     < 300 MHz: 1.3:1 max.  
     > 300 MHz: 1.5:1 max.  
 CW Input: 1 W max.  
 Weight, nominal: 0.1 oz (2.8 g)

### A-Package Outline



- NOTES: 1. Tolerance on 3 place decimals ±.010(.25) except as noted.  
 2. Dimensions in inches over millimeters.  
 3. Lead dimensions apply only at body.  
 4. All unmarked pins are case ground.

### Typical QHF-23A-60 Performance



### General Notes:

1. The QHF-23A series of 3 dB Quadrature Hybrids covers 1 to 1250 MHz using special lumped element designs to minimize size for high performance in applications requiring small size. The 0.385" by 0.5" flatpack which houses these 3 dB Quadrature Hybrids is ideally suited to aerospace applications where inherent package reliability and hermeticity are essential.

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