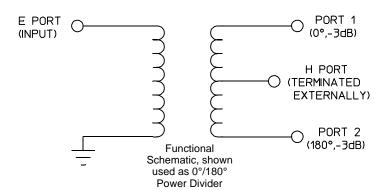
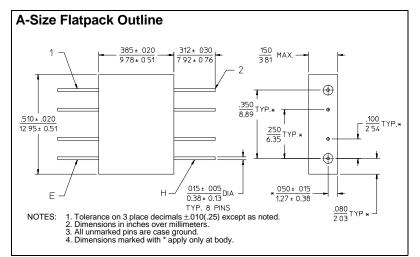
5 to 500 MHz / 4-Port Hybrid Junction / High Isolation / Low Insertion Loss / Hi-Rel Hermetic Pkg





PRINCIPAL SPECIFICATIONS									
Model Number	Frequency Range, MHz	Performance Bandwidth, MHz	Isolation, E - H Ports, dB, Min	Insertion Loss, dB, Max.	Amplitude Balance, dB, Max.	Phase Balance, Max.	VSWR, Max.		
HJF-A-200	5 - 400	5 - 10 10 - 200 200 - 400	30 30 30	1.5 1.0 1.5	0.4 0.3 0.4	± 3° ± 3° ± 3°	1.5:1 1.3:1 1.5:1		
HJF-A-300	100 - 500	100 - 500	25	1.5	0.4	± 4°	1.4:1		



GENERAL SPECIFICATIONS

 $\begin{array}{lll} \mbox{Impedance:} & 50 \ \Omega \ \mbox{nom.} \\ \mbox{Coupling:} & -3 \ \mbox{dB nom.} \\ \mbox{CW Input:} & 1 \ \mbox{Watt max.} \\ \mbox{Weight:} & 0.1 \ \mbox{oz} \ (2.8 \ \mbox{g}) \mbox{nom.} \\ \mbox{Operating Temperature:} & -55^{\circ} \ \mbox{to} \ +85^{\circ} \mbox{C} \end{array}$

input/Output Relationships									
	Е	Н	1	2					
	Isol.	In	0° ref.	0°					
	In	Isol.	0° ref.	180°					

General Notes:

- 1. The HJF-A series of four port hybrid junctions uses lumped element circuits to provide a variety of signal processing functions. Among these are:
- a) **Power division with phase shift**: Signals applied to the delta (Δ) port, or E-arm, will divide equally between output ports 1 and 2 (co-linear arms) and be 180° *out of phase*.
- b) **Power division with no phase shift**: Signals applied to the sum (Σ) port, or H-arm, will divide equally between output ports 1 and 2 (co-linear arms) and be *in phase*.
- c) **Vector addition**: Simultaneous application of signals to both E and H arms results in their vector addition to one co-linear port and vector subtraction at the other. Correction for the phase difference between E and H paths to the co-linear ports must be made. This phase equalization may be applied externally or factory installed within the unit at additional cost.
- 2. All units comply with MIL-P-23971 and can be supplied screened for compliance with additional specifications for military and aerospace applications requiring the highest reliability.

