

FP-504/FP-514
Wideband
RF/Pulse
Transformer
1-500 MHz



DESCRIPTION

Subminiature size, easily solderable or weldable planar ribbon leads and high performance design makes the FP transformer ideal for MIC substrate and printed circuits.

These transformers are high reliability devices designed to meet MIL-T-55631. Typical applications are: Interstage coupling, phase detection, voltage/current step up/step down and pulse transformation.

GUARANTEED MINIMUM PERFORMANCE DATA

SPECIFICATIONS FOR MODEL FP-504

Type: 50 ohm unbalanced	
25 ohm unbalanced	
- 1 dB Bandwidth, MHz	1-500
Midband insertion loss dB	.50
VSWR	1-350 MHz 1.3:1
	350-500 MHz 2.5:1

SPECIFICATIONS FOR MODEL FP-514

Type: 50 ohm unbalanced	
75 ohm unbalanced	
- 1 dB Bandwidth, MHz	1-500
Midband insertion loss dB	.50
VSWR	1.4:1

NOTE:

- 1 dB bandwidth is measured relative to midband loss.

ABSOLUTE MAXIMUM RATINGS:

Input power *1 w. above 10 MHz,
.25 w. below 10 MHz
Temperature range - 54° to + 100°C

*Includes DC current effects by approx.

$$(I_{DC}^2 + I_{RF}^2)Z = P_{max}$$

ENVIRONMENTAL CONDITIONS

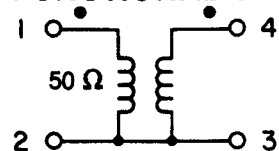
GUARANTEED ENVIRONMENTAL PERFORMANCE:

All units are designed to meet their specifications over - 54°C to + 100°C and after exposure to any or all of the following tests per MIL-STD-202E.

Exposure	Method	Test Condition
Thermal Shock	107D	B
Altitude	105C	G
H.F. Vibration	204C	D
Mechanical Shock	213B	C
Random Vibration	214	IIF
(15 minutes per axis)		
Solderability	208C	
Terminal Strength	211A	C
Resistance to Soldering Heat	210A	B

Sealed units, meet the requirements of Method 106D of MIL-STD-202E when exposed to humidity.

FUNCTIONAL SCHEMATIC



Specifications subject to change without notice.

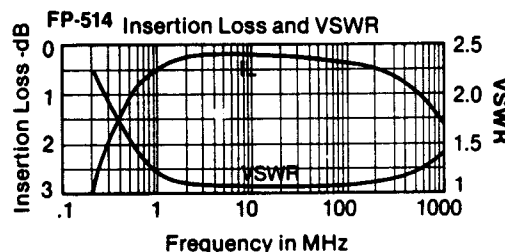
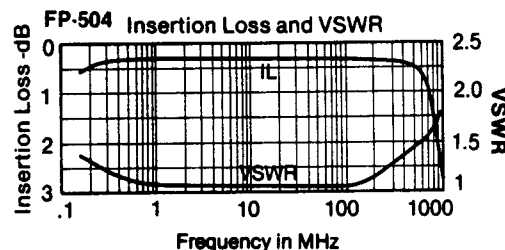
TYPICAL PERFORMANCE

FP-504

Risetime:	.3 nS
Droop: (10%)	250 nS
Group delay:	< 1 nS

FP-514

Risetime:	.3 nS
Droop: (10%)	250 nS
Group delay:	< 1 nS



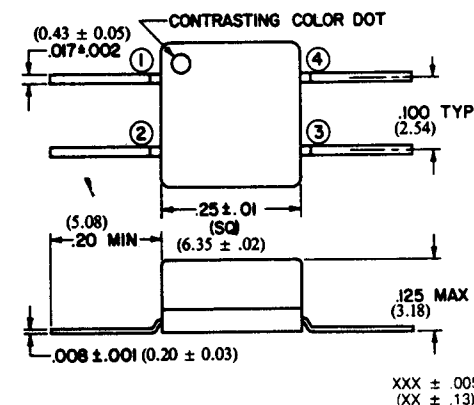
PACKAGE

MATERIAL:

Header: Glass filled epoxy
Leads: Kovar per MIL-STD-1276,
Type K

FINISH:

Header: Black epoxy
Leads: Tin plate per
MIL-T-10727, Type 1



8.10.04 Rev. A