

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

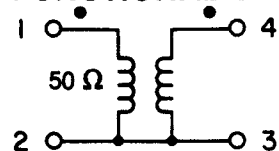
GUARANTEED ENVIRONMENTAL PERFORMANCE:

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.

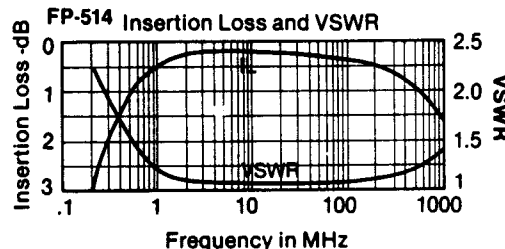
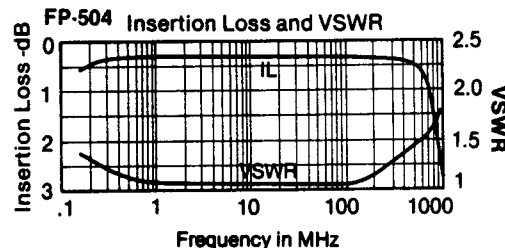
TYPICAL PERFORMANCE

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 |



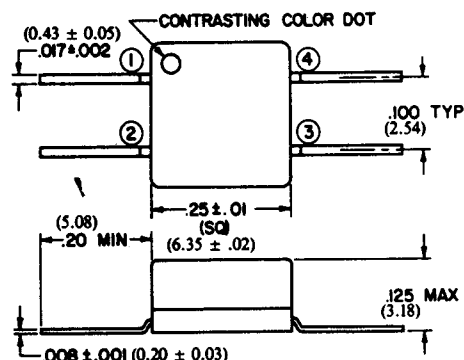
PACKAGE

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



XXX ± .005
(XX ± .13)