## Xinger

## Balun Transformers $50 \Omega$ to $25 \Omega$ Balanced

## Description

The 3A525 is a low profile balanced to unbalanced transformer in an easy to use surface mount package covering Japanese PDC，DCS and PCS receive push－pull amplifier and mixer applications．The 3A525 has an unbalanced impedance of $50 \Omega$ and a balanced port impedances of $25 \Omega$ to ground with $50 \Omega$ balance between outputs．This eases the matching of the push－pull amplifier＇s power transistors which have low impedance levels． The output ports have equal amplitude（ -3 dB ）with $180^{\circ}$ phase differential． The 3A525 is available on tape and reel for pick and place high volume manufacturing．

ELECTRICAL SPECIFICATIONS＊＊＊

Features：
－ $1.5-1.9 \mathrm{GHz}$
－ $180^{\circ}$ Transformer
－ 50 Ohm to $2 \times 25$ Ohm
－Low Insertion Loss
－High Power
－Input to Output DC Isolation
－Surface Mountable
－Tape \＆Reel
－Convenient Package

| Frequency | Unbalanced Port Impedance | Balanced Port Impedance＊ | Return Loss | Insertion Loss＊＊ |
| :---: | :---: | :---: | :---: | :---: |
| GHz | Ohms | Ohms | $d B$ min | dB max |
| 1．5－1．9 | 50 | 25 | 15 | 0.35 |
| Amplitude Balance | Phase Balance | Power Handling | $\Theta J C$ | Operating Temp． |
| dB max | Degrees max | Watts | ${ }^{\circ} \mathrm{C} /$ Watt | ${ }^{\circ} \mathrm{C}$ |
| 0.40 | $180 \pm 5.0$ | 150 | 7.2 | -55 to＋85 |

＊＊＊Specification based on performance of unit properly installed on microstrip printed circuit boards with $50 \Omega$ nominal impedance．Specifications subject to change without notice． ＊＊Insertion Loss excludes reflected power．＊ $25 \Omega$ reference to ground

## Outline Drawing



## Model 3A525

Rev. A

Typical Performance: 1200 MHz. to 2200 MHz.


Pin Configuration


## Mounting Configuration

To ensure proper electrical and thermal performance
there must be a ground plane with $100 \%$
solder connection underneath the part


