

## Isolators & Loads



# Isolators, Circulators & Loads

**Bird Technologies group, TX RX systems brand, isolators are designed to provide the specified isolation under continuous duty at maximum power. Their conservative, rugged design and construction have a record of excellent reliability and high performance established through over 20 years of service in critical systems.**

## ISOLATORS

- Provides rated isolation at rated continuous power
- Standard isolator loads rated to protect against antenna system failure

## CIRCULATORS

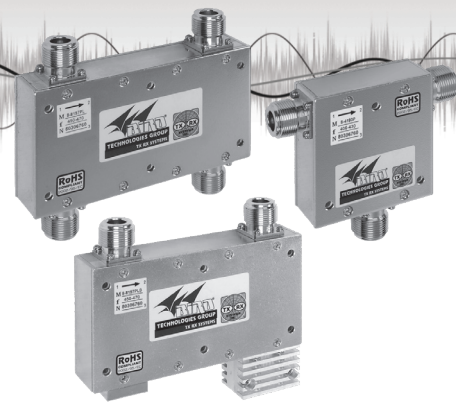
- Available dual or single junction versions from 118-250 Mhz, 300-530 Mhz and 746-960 Mhz
- Small package outline
- Up to 250 watts power handling
- High isolation throughout bandwidth (no-tuning) Low insertion loss
- Low PIM design
- Wide operation temperature range
- RoHS compliant
- Various connector options available
- Ideal for applications with minimal guard band between transmit and receive frequencies

**Bird Technologies group, TX RX systems brand, natural convection, air-cooled dry RF loads are designed as precision, heavy-duty 50-ohm terminations for isolators and specialized hybrid combining applications operating up to 1000 Mhz. These loads have power density factors (ratio of rated power to heatsink surface area) that are among the lowest in the industry which means lower heatsink surface temperatures for a particular power dissipation. They also have excellent return loss characteristics over their entire operating range, making them ideal for use in test as well as operational applications.**

## LOADS

- Precision 50-ohm loads for all termination applications
- High heatsink surface area for lower heatsink surface temperatures
- >30 dB return loss up to 1000 Mhz

# Single-Junction Circulators & Isolators

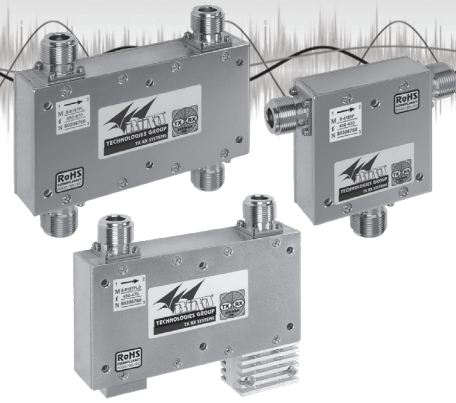


## Electrical Specifications

<b>Number of Junctions</b>	1
<b>Junction Type</b>	Lumped constant
<b>Isolation Bandwidth</b>	2.5% of center freq.
<b>Typical Insertion Loss</b>	0.45 dB
<b>Max Insertion Loss</b>	0.5 dB
<b>Peak Reverse Isolation</b>	>30 dB
<b>Min Reverse Isolation</b>	>25 dB
<b>Nominal Impedance</b>	50 ohm
<b>Min return loss (VSWR)</b>	20 dB (1:22: 1)
<b>Temperature Range</b>	-30 to +60 °C
<b>Connectors, Input/Output/Load</b>	N

Model Number	Frequency Range	Max Continuous Input Power	RF load Model Number	Continuous RF Load Power	Dimensions, HxWxD (mm)	Weight lb (Kg)
81-35A-15-00	118-136 MHz	100 Watts	None	None	3.94"x3.75"x1.78" (100x95x45)	1.40 (0.64)
81-35A-15-20	118-136 MHz	100 Watts	82-01-05	5W	5.0"x3.75"x1.78" (127x95x45)	1.58 (0.72)
81-35A-15-50	118-136 MHz	100 Watts	82-01-16	25W	8.81"x3.75"x1.78" (223x95x45)	2.04 (0.93)
81-35A-15-60	118-136 MHz	100 Watts	82-01-17	60W	9.91"x3.9"x1.78" (252x99x45)	2.68 (1.21)
81-35A-15-100	118-136 MHz	100 Watts	82-01-15	100W	9.91"x3.9"x2.9" (252x99x45)	3.41 (1.54)
81-36-15-00	132-150 MHz	150 Watts	None	None	3.94"x3.75"x1.78" (100x95x45)	1.40 (0.64)
81-36-15-20	132-150 MHz	150 Watts	82-01-05	5W	5.0"x3.75"x1.78" 9 (127x95x45)	1.58 (0.72)
81-36-15-50	132-150 MHz	150 Watts	82-01-16	25W	8.81"x3.75"x1.78" (223x95x45)	2.04 (0.93)
81-36-15-60	132-150 MHz	150 Watts	82-01-17	60W	9.91"x3.9"x1.78" (252x99x45)	2.68 (1.21)
81-36-15-100	132-150 MHz	150 Watts	82-01-15	100W	9.91"x3.9"x2.9" (252x99x45)	3.41 (1.54)
81-37-15-00	144-174 MHz	150 Watts	None	None	3.94"x3.75"x1.78" (100x95x45)	1.40 (0.64)
81-37-15-20	144-174 MHz	150 Watts	82-01-05	5W	5.0"x3.75"x1.78" (127x95x45)	1.58 (0.72)
81-37-15-50	144-174 MHz	150 Watts	82-01-16	25W	8.81"x3.75"x1.78" (223x95x45)	2.04 (0.93)
81-37-15-60	144-174 MHz	150 Watts	82-01-17	60W	9.91"x3.9"x1.78" (252x99x45)	2.68 (1.21)
81-37-15-100	144-174 MHz	150 Watts	82-01-15	100W	9.91"x3.9"x2.9" (252x99x45)	3.41 (1.54)
81-52-15-00	215-250 MHz	150 Watts	None	None	3.94"x3.75"x1.78" (100x95x45)	1.40 (0.64)
81-52-15-20	215-250 MHz	150 Watts	82-01-05	5W	5.0"x3.75"x1.78" (127x95x45)	1.58 (0.72)
81-52-15-50	215-250 MHz	150 Watts	82-01-16	25W	8.81"x3.75"x1.78" (223x95x45)	2.04 (0.93)
81-52-15-60	215-250 MHz	150 Watts	82-01-17	60W	9.91"x3.9"x1.78" (252x99x45)	2.68 (1.21)
81-52-15-100	215-250 MHz	150 Watts	82-01-15	100W	9.91"x3.9"x2.9" (252x99x45)	3.41 (1.54)

# 15 & 16 Series Single-Junction Circulators & Isolators



15 & 16 Series Single-Junction

## 15 Series Single Junction Electrical Specifications

<b>Isolation dB Min</b>	25 18***
<b>Return Loss dB Max</b>	21 18***
<b>VSWR Max</b>	1.2:1 1.3:1***
<b>Power (W) Max Forward/Reverse</b>	250/250
<b>Operating Temp °C</b>	-30 to +60
<b>Connector Type</b>	Port1~3: N-F
<b>L x W x H</b>	<b>inch</b> 2.26 x 2.05 x 0.87 <b>mm</b> 57.5 x 52.0 x 22.0
<b>Tolerance</b>	<b>inch</b> ±0.01 <b>mm</b> ±0.1

Model Number/ Isolation BW	Frequency	Insertion Loss dB Max
81-55A-15-XX***	300-350 MHz	0.60
81-55B-15-XX***	350-406 MHz	0.60
81-56A-15-XX	380-400 MHz	0.44
81-65-15-XX	406-430 MHz	0.35
81-65A-15-XX	430-450 MHz	0.44
81-70-15-XX	450-470 MHz	0.44
81-71-15-XX	470-490 MHz	0.44
81-72-15-XX	490-512 MHz	0.44
81-75-15-XX	512-530 MHz	0.44

## 16 Series Single Junction Electrical Specifications

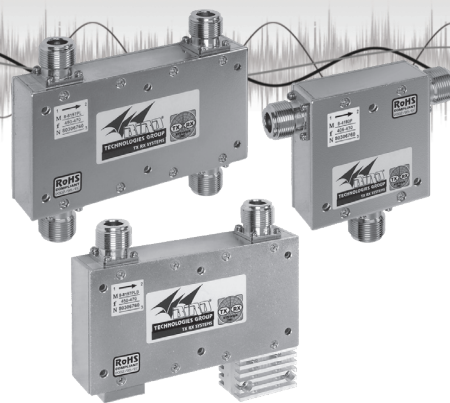
<b>Isolation dB Min</b>	25 18***
<b>Isolation Loss dB Min</b>	0.35 0.60***
<b>Return Loss dB Max</b>	21 18***
<b>VSWR Max</b>	1.2:1 1.3:1***
<b>Power (W) Max Forward/Reverse</b>	250/250
<b>Operating Temp °C</b>	-30 to +60
<b>Connector Type</b>	Port1~3: N-F
<b>L x W x H</b>	<b>inch</b> 2.22 x 2.17 x 0.87 <b>mm</b> 56.5 x 55.0 x 22.0
<b>Tolerance</b>	<b>inch</b> ±0.01 <b>mm</b> ±0.1

Model Number/ Isolation BW	Frequency
81-55A-16-XX***	300-350 MHz
81-55B-16-XX***	350-406 MHz
81-56A-16-XX	380-400 MHz
81-65-16-XX	406-430 MHz
81-65A-16-XX	430-450 MHz
81-70-16-XX	450-470 MHz
81-71-16-XX	470-490 MHz
81-72-16-XX	490-512 MHz
81-75-16-XX	512-530 MHz

\*xx=load - 50=25 watts, 60=60 watts, 100=100 watts  
 \*\*load dependent  
 \*\*\*Isolators with a bandwidth greater than 25 MHz



# Dual-Junction Series Circulators & Isolators



## Dual Junction Electrical Specifications

<b>Isolation dB Min</b>	50 46***
<b>Insertion Loss dB Max</b>	0.44
<b>Return Loss dB Max</b>	21
<b>VSWR Max</b>	1.2:1
<b>Power (W) Max Forward/Reverse</b>	250/**
<b>Operating Temp</b>	-30 to +60 °C
<b>Connector Type</b>	Port1~3: N-F, Port 4: 10W
<b>L x W x H</b>	
<b>inch</b>	2.28 x 4.17 x 0.87
<b>mm</b>	58.0 x 106.0 x 22.0
<b>Tolerance</b>	
<b>inch</b>	±0.01
<b>mm</b>	±0.1

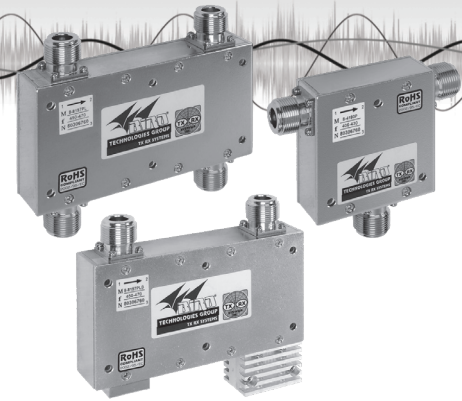
Model Number/ Isolation BW	Frequency
81-55A-26-XX***	300-350 MHz
81-55B-26-XX***	350-406 MHz
81-56A-26-XX	380-400 MHz
81-65-26-XX	406-430 MHz
81-65A-26-XX	430-450 MHz
81-70-26-XX	450-470 MHz
81-71-26-XX	470-490 MHz
81-72-26-XX	490-512 MHz
81-75-26-XX	512-530 MHz

\*xx=load - 50=25 watts, 60=60 watts, 100=100 watts

\*\*load dependent

\*\*\*Isolators with a bandwidth greater than 25 MHz

# 700 & 800 Single Junction Series Circulators & Isolators



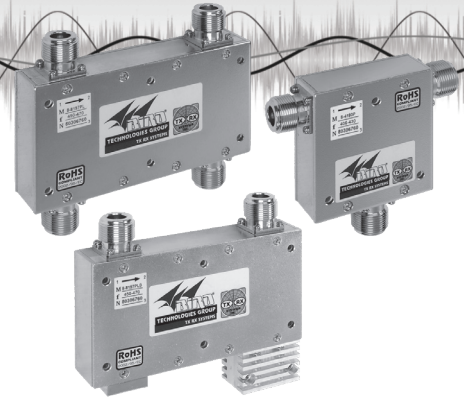
700 & 800 Single Junction Series

## 700 & 800 Single Junction Series Electrical Specifications

<b>Number of Junctions</b>	1
<b>Junction Type</b>	Distributed Parameter
<b>Max Continuous Input Power</b>	150 Watts
<b>Isolation Bandwidth</b>	2.5% of center freq.
<b>Typical Insertion Loss</b>	0.25 dB
<b>Max Insertion Loss</b>	0.3 dB
<b>Peak Reverse Isolation</b>	>30 dB
<b>Min Reverse Isolation</b>	>25 dB
<b>Nominal Impedance</b>	50 ohm
<b>Min Return Loss (VSWR)</b>	20 dB (1:22: 1)
<b>Temperature Range °C</b>	-30 to +60
<b>Connectors, Input/Output/Load</b>	N

Model Number	Frequency	RF Load Model Number	Continuous RF Load Power	Dimensions, HxWxD (mm)	Weight lb (Kg)
81-83C-15-00	746-776 MHz	None	None	5.63 x 3.15 x 1.84 (143 x 80 x 47)	1.32 (0.60)
81-83C-15-20	746-776 MHz	82-01-05	10W	6.66 x 3.15 x 1.84 9 (169 x 80 x 47)	1.50 (0.68)
81-83C-15-50	746-776 MHz	82-01-16	25W	10.41 x 3.15 x 1.84 (264 x 80 x 47)	1.97 (0.89)
81-83C-15-60	746-776 MHz	82-01-17	60W	11.59 x 3.15 x 1.84 (294 x 80 x 47)	2.60 (1.18)
81-83C-15-100	746-776 MHz	82-01-15	100W	11.59 x 3.94 x 2.90 (294 x 100 x 74)	3.33 (1.51)
81-86A-15-00	806-824 MHz	None	None	5.63 x 3.15 x 1.84 (143 x 80 x 47)	1.32 (0.60)
81-86A-15-20	806-824 MHz	82-01-05	10W	6.66 x 3.15 x 1.84 (169 x 80 x 47)	1.50 (0.68)
81-86A-15-50	806-824 MHz	82-01-16	25W	10.41 x 3.15 x 1.84 (264 x 80 x 47)	1.97 (0.89)
81-86A-15-60	806-824 MHz	82-01-17	60W	10.41 x 3.15 x 1.84 (264 x 80 x 47)	2.60 (1.18)
81-86A-15-100	806-824 MHz	82-01-15	100W	11.59 x 3.94 x 2.90 (294 x 100 x 74)	3.33 (1.51)
81-87A-15-00	851-869 MHz	None	None	5.63 x 3.15 x 1.84 (143 x 80 x 47)	1.32 (0.60)
81-87A-15-20	851-869 MHz	82-01-05	5W	6.66 x 3.15 x 1.84 9 (169 x 80 x 47)	1.50 (0.68)
81-87A-15-50	851-869 MHz	82-01-16	25W	10.41 x 3.15 x 1.84 (264 x 80 x 47)	1.97 (0.89)
81-87A-15-60	851-869 MHz	82-01-17	60W	11.59 x 3.15 x 1.84 (294 x 80 x 47)	2.60 (1.18)
81-87A-15-100	851-869 MHz	82-01-15	100W	11.59 x 3.94 x 2.90 (294 x 100 x 74)	3.33 (1.51)
81-93A-15-00	870-894 MHz	None	None	5.63 x 3.15 x 1.84 (143 x 80 x 47)	1.32 (0.60)
81-93A-15-20	870-894 MHz	82-01-05	5W	6.66 x 3.15 x 1.84 9 (169 x 80 x 47)	1.50 (0.68)
81-93A-15-50	870-894 MHz	82-01-16	25W	10.41 x 3.15 x 1.84 (264 x 80 x 47)	1.97 (0.89)
81-93A-15-60	870-894 MHz	82-01-17	60W	11.59 x 3.15 x 1.84 (294 x 80 x 47)	2.60 (1.18)
81-93A-15-100	870-894 MHz	82-01-15	100W	11.59 x 3.94 x 2.90 (294 x 100 x 74)	3.33 (1.51)

# 700 & 800 Dual Junction Series Circulators & Isolators

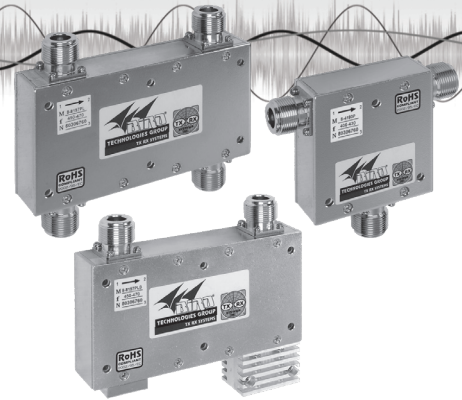


## 700 & 800 Dual Junction Series Electrical Specifications

<b>Number of Junctions</b>	2
<b>Junction Type</b>	Distributed Parameter
<b>Max Continuous Input Power</b>	150 Watts
<b>Isolation Bandwidth</b>	2.5% of center freq.
<b>Typical Insertion Loss</b>	0.5 dB
<b>Max Insertion Loss</b>	0.65 dB
<b>Peak Reverse Isolation</b>	>60 dB
<b>Min Reverse Isolation</b>	>50 dB
<b>Nominal Impedance</b>	50 ohm
<b>Min return loss (VSWR)</b>	20 dB (1:22: 1)
<b>Temperature Range°C</b>	-30 to +60
<b>Connectors, Input/Output/Load</b>	N

Model Number	Frequency	RF Load Model Number	Continuous RF Load Power	Dimensions, HxWxD (mm)	Weight lb (kg)
81-83C-25-00	746-776 MHz	None	None	5.63 x 6.38 x 1.84 (143 x 162 x 47)	2.79 (1.27)
81-83C-25-20	746-776 MHz	82-01-05	10/5W	5.63 x 6.38 x 1.84 (143 x 162 x 47)	3.15 (1.43)
81-83C-25-50	746-776 MHz	82-01-16	10/25W	10.41 x 6.38 x 1.84 (264 x 162 x 47)	3.61 (1.64)
81-83C-25-60	746-776 MHz	82-01-17	10/60W	11.59 x 6.38 x 1.84 (294 x 162 x 47)	4.25 (1.93)
81-83C-25-100	746-776 MHz	82-01-15	10/100W	11.59 x 6.77 x 2.90 (294 x 172 x 74)	4.97 (2.26)
81-86A-25-00	806-824 MHz	None	None	5.63 x 6.38 x 1.84 (143 x 162 x 47)	2.79 (1.27)
81-86A-25-20	806-824 MHz	82-01-05	10/5W	6.66 x 6.38 x 1.84 (169 x 162 x 47)	3.15 (1.43)
81-86A-25-50	806-824 MHz	82-01-16	10/25W	10.41 x 6.38 x 1.84 (264 x 162 x 47)	3.61 (1.64)
81-86A-25-60	806-824 MHz	82-01-17	10/60W	10.41 x 6.38 x 1.84 (264 x 162 x 47)	4.25 (1.93)
81-86A-25-100	806-824 MHz	82-01-15	10/100W	11.59 x 6.77 x 2.90 (294 x 172 x 74)	4.97 (2.26)
81-87A-25-00	851-869 MHz	None	None	5.63 x 6.38 x 1.84 (143 x 162 x 47)	2.79 (1.27)
81-87A-25-20	851-869 MHz	82-01-05	10/5W	6.66 x 6.38 x 1.84 (169 x 162 x 47)	3.15 (1.43)
81-87A-25-50	851-869 MHz	82-01-16	10/25W	10.41 x 6.38 x 1.84 (264 x 162 x 47)	3.61 (1.64)
81-87A-25-60	851-869 MHz	82-01-17	10/60W	11.59 x 6.38 x 1.84 (294 x 162 x 47)	4.25 (1.93)
81-87A-25-100	851-869 MHz	82-01-15	10/100W	11.59 x 6.77 x 2.90 (294 x 172 x 74)	4.97 (2.26)
81-93A-25-00	870-894 MHz	None	None	5.63 x 6.38 x 1.84 (143 x 162 x 47)	2.79 (1.27)
81-93A-25-20	870-894 MHz	82-01-05	10/5W	6.66 x 6.38 x 1.84 (169 x 162 x 47)	3.15 (1.43)
81-93A-25-50	870-894 MHz	82-01-16	10/25W	10.41 x 6.38 x 1.84 (264 x 162 x 47)	3.61 (1.64)
81-93A-25-60	870-894 MHz	82-01-17	10/60W	11.59 x 6.38 x 1.84 (294 x 162 x 47)	4.25 (1.93)
81-93A-25-100	870-894 MHz	82-01-15	10/100W	11.59 x 6.77 x 2.90 (294 x 172 x 74)	4.97 (2.26)

# 900 Series Single Junction Series Circulators & Isolators



900 Series Single Junction

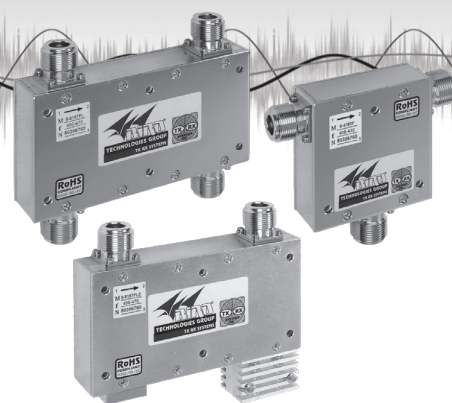
## 900 Series Single Junction Electrical Specifications

<b>Number of Junctions</b>	1
<b>Junction Type</b>	Distributed Parameter
<b>Max Continuous Input Power</b>	150 Watts
<b>Isolation Bandwidth</b>	2.5% of center freq.
<b>Typical Insertion Loss</b>	0.25 dB
<b>Max Insertion Loss</b>	0.3 dB
<b>Peak Reverse Isolation</b>	>30 dB
<b>Min Reverse Isolation</b>	>25 dB
<b>Nominal Impedance</b>	50 ohm
<b>Min return loss (VSWR)</b>	20 dB (1:22: 1)
<b>Temperature Range°C</b>	-30 to +60
<b>Connectors, Input/Output/Load</b>	N

Model Number	Frequency	RF Load Model Number	Continuous RF Load Power	Dimensions, HxWxD (mm)	Weight lb (Kg)
81-96B-15-00	925-935 MHz	None	None	5.63 x 3.15 x 1.84 (143 x 80 x 47)	1.32 (0.60)
81-96B-15-20	925-935 MHz	82-01-05	10W	6.66 x 3.15 x 1.84 (169 x 80 x 47)	1.50 (0.68)
81-96B-15-50	925-935 MHz	82-01-16	25W	10.41 x 3.15 x 1.84 (264 x 80 x 47)	1.97 (0.89)
81-96B-15-60	925-935 MHz	82-01-17	60W	11.59 x 3.15 x 1.84 (294 x 80 x 47)	2.60 (1.18)
81-96B-15-100	925-935 MHz	82-01-15	100W	11.59 x 3.94 x 2.90 (294 x 100 x 74)	3.33 (1.51)
81-95-15-00	935-940 MHz	None	None	5.63 x 3.15 x 1.84 (143 x 80 x 47)	1.32 (0.60)
81-95-15-20	935-940 MHz	82-01-05	10W	6.66 x 3.15 x 1.84 (169 x 80 x 47)	1.50 (0.68)
81-95-15-50	935-940 MHz	82-01-16	25W	10.41 x 3.15 x 1.84 (264 x 80 x 47)	1.97 (0.89)
81-95-15-60	935-940 MHz	82-01-17	60W	11.59 x 3.15 x 1.84 (294 x 80 x 47)	2.60 (1.18)
81-95-15-100	935-940 MHz	82-01-15	100W	11.59 x 3.94 x 2.90 (294 x 100 x 74)	3.33 (1.51)
81-98-25-00	940-960 MHz	None	None	5.63 x 3.15 x 1.84 (143 x 80 x 47)	1.32 (0.60)
81-98-25-20	940-960 MHz	82-01-05/82-01-05	5W	6.66 x 3.15 x 1.84 (169 x 80 x 47)	1.50 (0.68)
81-98-25-50	940-960 MHz	82-01-05/82-01-16	25W	10.41 x 3.15 x 1.84 (264 x 80 x 47)	1.97 (0.89)
81-98-25-60	940-960 MHz	82-01-17	60W	11.59 x 3.15 x 1.84 (294 x 80 x 47)	2.60 (1.18)
81-98-25-100	940-960 MHz	82-01-15	100W	11.59 x 3.94 x 2.90 (294 x 100 x 74)	3.33 (1.51)



# 900 Series Dual Junction Circulators and Isolators

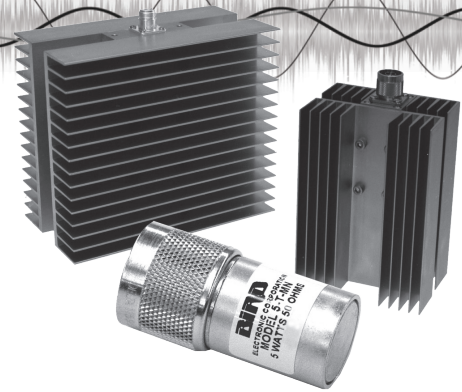
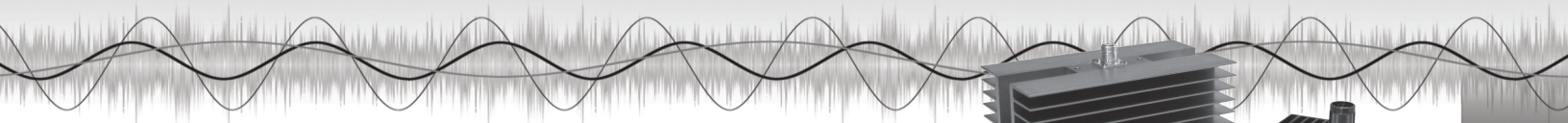


## 900 Series Dual Junction Electrical Specifications

<b>Number of Junctions</b>	2
<b>Junction Type</b>	Distributed Parameter
<b>Max Continuous Input Power</b>	150 Watts
<b>Isolation Bandwidth</b>	2.5% of center freq.
<b>Typical Insertion Loss</b>	0.5 dB
<b>Max Insertion Loss</b>	0.65 dB
<b>Peak Reverse Isolation</b>	>60 dB
<b>Min Reverse Isolation</b>	>50 dB
<b>Nominal Impedance</b>	50 ohm
<b>Min return loss (VSWR)</b>	20 dB (1:22: 1)
<b>Temperature Range°C</b>	-30 to +60
<b>Connectors, Input/Output/Load</b>	N

Model Number	Frequency	RF Load Model Number	Continuous RF Load Power	Dimensions, HxWxD (mm)	Weight lb (Kg)
81-96B-25-00	925-935 MHz	None	None	5.63 x 6.38 x 1.84 (143 x 162 x 47)	1.32 (0.60)
81-96B-25-20	925-935 MHz	82-01-05/82-01-05	10W	6.66 x 6.38 x 1.84 (143 x 162 x 47)	1.50 (0.68)
81-96B-25-50	925-935 MHz	82-01-05/82-01-16	25W	10.41 x 6.38 x 1.84 (264 x 162 x 47)	1.97 (0.89)
81-96B-25-60	925-935 MHz	82-01-05/82-01-17	60W	11.59 x 6.38 x 1.84 (294 x 162 x 47)	2.60 (1.18)
81-96B-25-100	925-935 MHz	82-01-05/82-01-15	100W	11.59 x 6.77 x 2.90 (294 x 172 x 74)	3.33 (1.51)
81-95-25-00	935-940 MHz	None	None	5.63 x 6.38 x 1.84 (143 x 162 x 47)	1.32 (0.60)
81-95-25-20	935-940 MHz	82-01-05/82-01-05	10W	5.63 x 6.38 x 1.84 (143 x 162 x 47)	1.50 (0.68)
81-95-25-50	935-940 MHz	82-01-05/82-01-16	25W	10.41 x 6.38 x 1.84 (264 x 162 x 47)	1.97 (0.89)
81-95-25-60	935-940 MHz	82-01-05/82-01-17	60W	11.59 x 6.38 x 1.84 (294 x 162 x 47)	2.60 (1.18)
81-95-25-100	935-940 MHz	82-01-05/82-01-15	100W	11.59 x 6.77 x 2.90 (294 x 172 x 74)	3.33 (1.51)
81-98-25-00	940-960 MHz	None	None	5.63 x 6.38 x 1.84 (143 x 162 x 47)	1.32 (0.60)
81-98-25-20	940-960 MHz	82-01-05/82-01-05	5W	5.63 x 6.38 x 1.84 (143 x 162 x 47)	1.50 (0.68)
81-98-25-50	940-960 MHz	82-01-05/82-01-16	25W	10.41 x 6.38 x 1.84 (264 x 162 x 47)	1.97 (0.89)
81-98-25-60	940-960 MHz	82-01-05/82-01-17	60W	11.59 x 6.38 x 1.84 (294 x 162 x 47)	2.60 (1.18)
81-98-25-100	940-960 MHz	82-01-05/82-01-15	100W	11.59 x 6.77 x 2.90 (294 x 172 x 74)	3.33 (1.51)

# RF Loads 5-960 MHz



## RF Loads

<b>Frequency</b>	5-960 MHz
<b>Load Type</b>	Dry
<b>Cooling</b>	Natural Air Convection
<b>Ambient Temperature °C</b>	-30 to +60 °C
<b>Duty Cycle</b>	Continuous
<b>Nominal Impedance</b>	50 ohm
<b>Typical Return Loss, dB (VSWR)</b>	>30 (1:05.1)

Model Number	Maximum RF Input Power, Watts	Resistor Element Rating, Watts	Heatsink Area, in <sup>2</sup> (cm <sup>2</sup> )	Heatsink Power Density, Watts/in <sup>2</sup>	Connector Type	Dimensions, HxWxD (or L x D), In (mm)	Weight, lb (kg)
82-01-05	5W	60	9.2 (59)	0.54	N(M)	1.6hx0.8Ø, (41x20)	0.12 (0.06)
82-01-16	25W	60	57 (368)	0.44	N(M)	4.7Lx2.3Ø, (119x59)	0.63 (0.31)
82-01-17	60W	250	172.7 (1114)	0.35	N(M)	6.3x3.9x1.6, (160x99x41)	1.28 (0.58)
82-01-15	100W	250	334.7 (2159)	0.4	N(M)	6.3x3.9x2.9, (160x99x74)	2.00 (0.91)
82-01-19	250W	250	898.2 (5795)	0.28	N(F)	7.4x8.00x4.3, (188x203x109)	7.52 (3.41)

Bird's mission is to serve as one of the industry's leading RF experts in Coverage Solutions, Off-Air Testing, Radio Infrastructure, Sensor Solutions and Test and Measurement. We strive to provide our customers with the highest quality, innovative RF products and services all based around total reliability.

All Bird products can be serviced and calibrated by the **Bird Service Center** (BSC). Bird Service Centers and Service Partners are located World Wide providing a full range of service and support for your Bird Products.

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