

## MNM4200/4210/4220

## NanoMount™ Switches

**PRODUCT PREVIEW** 

#### **DESCRIPTION**

NanoMount<sup>TM</sup> is a self contained surface mountable PIN diode matrix consisting of a number of our unique patented Silicon MMSM<sup>TM</sup> PIN devices. These models offer configurations which on easy-to-use tape and reel emulate "transfer," "diversity", "transmit/receive", and single pole double throw (SPDT) switching functions.

The new NanoMount technology creates a wide-bandwidth, highpower solution with outstanding isolation, insertion loss and power handling capabilities. All packaging.

IMPORTANT: For the most current data, consult MICROSEMI's website: http://www.microsemi.com

#### APPLICATIONS/BENEFITS

- 0.1 to 6.0GHz Bandwidth
- 100x100mm Footprint
- 10W Power Handling
- Many Wiring Options Possible
- Low Current Consumption
- Low Distortion Silicon MMSM **PINs**
- Superb Consistency vs. Flatpack Or Lead Frame **Packages**
- Superior Performance vs. GaAs **MESFET Designs**

#### APPLICATIONS/BENEFITS

- WLAN 5GHz to 6GHz
- SPDT Switching
- "Transfer" Switching
- "Diversity" Switching
- **User Defined Functionality**
- Ideal For Wide Bandwidth Applications

## PRODUCT HIGHLIGHT





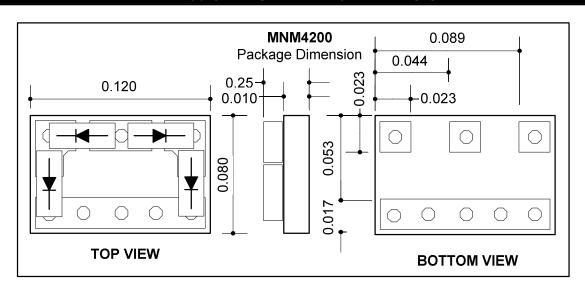
#### PRODUCT PREVIEW

### MNM4200 SERIES / SHUNT SPDT SWITCH\*

Isolation	Insertion Loss	VSWR	Power Handling
60dB @ 0.1GHz	0.3dB @ 0.1GHz	2.0:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power
45dB @1.0GHz	0.4dB @ 1.0GHz	2.0:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power
40dB @ 2.0GHz	0.5dB @ 2.0GHz	2.0:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power
30dB @ 4.0GHz	0.7dB @ 4.0GHz	2.0:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power
25dB @ 5.0GHz	1.0dB @ 5.0GHz	2.0:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power
25dB @ 6.0GHz	1.2dB @ 6.0GHz	2.0:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power

<sup>\*</sup>Typical performance at 5mA

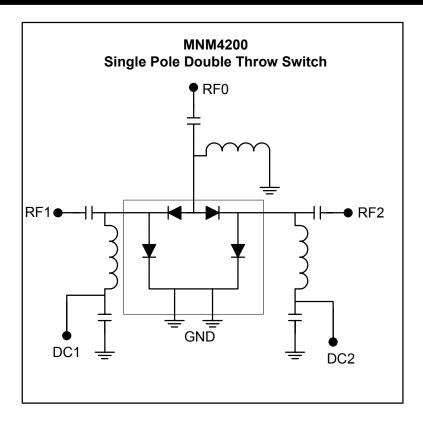
### MNM4200 SERIES / PACKAGE DIMENSION





PRODUCT PREVIEW

## MNM4200 SERIES: SINGLE POLE DOUBLE THROW SWITCH



#### MNM4210: TRANSFER/DUAL SWITCH\*

Isolation	Insertion Loss	VSWR	Power Handling
40dB @ 0.1GHz	0.2dB @ 0.1GHz	1.5:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power
30dB @1.0GHz	0.3dB @ 1.0GHz	1.5:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power
25dB @ 2.0GHz	0.3dB @ 2.0GHz	1.5:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power
15dB @ 4.0GHz	0.5dB @ 4.0GHz	1.5:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power
15dB @ 5.0GHz	0.5dB @ 5.0GHz	1.5:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power
15dB @ 6.0GHz	1.0dB @ 6.0GHz	1.5:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power

<sup>\*</sup>Typical performance at 5mA

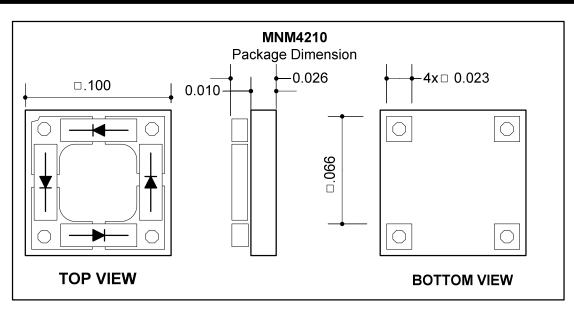
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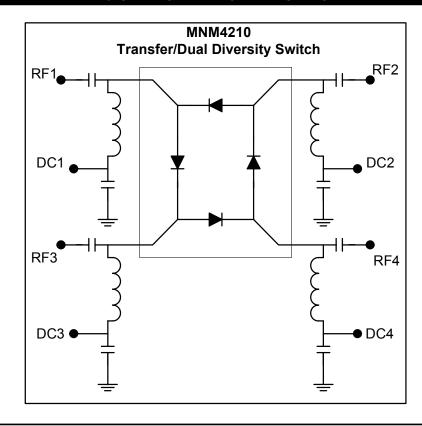


PRODUCT PREVIEW

### MNM4210 SERIES / PACKAGE DIMENSION



### MNM4210 SERIES: TRANSFER/DUAL SWITCH\*





#### **PRODUCT PREVIEW**

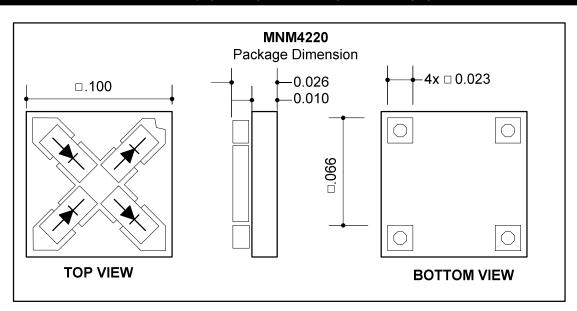
### MNM4220: JUNCTION/DIVERSITY SWITCH\*

Isolation	Insertion Loss	VSWR	Power Handling
40dB @ 0.1GHz	0.2dB @ 0.1GHz	1.5:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power
30dB @1.0GHz	0.3dB @ 1.0GHz	1.5:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power
25dB @ 2.0GHz	0.3dB @ 2.0GHz	1.5:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power
15dB @ 4.0GHz	0.5dB @ 4.0GHz	1.5:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power
15dB @ 5.0GHz	0.5dB @ 5.0GHz	1.5:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power
15dB @ 6.0GHz	1.0dB @ 6.0GHz	1.5:1 from 0.1GHz to 6.0GHz, all ports	10 Watts CW incident power

<sup>\*</sup>Typical performance at 5mA

Note: Above typical performance is for single junction configuration. Additional isolation improvement can be obtained by using a dual junction configuration

#### MNM4220 SERIES / PACKAGE DIMENSION





**PRODUCT PREVIEW** 

### MNM4210 SERIES: JUNCTION/DIVERSITY SWITCH\*

