



RF Multi-throw PIN Diode Switch Modules

MA8334 Series

V 2.00

Features

- SPDT and SP3T Designs
- Low Distortion
- High Reliability
- Usable from 10 MHz to 1 GHz
- Low Insertion Loss
- High Isolation

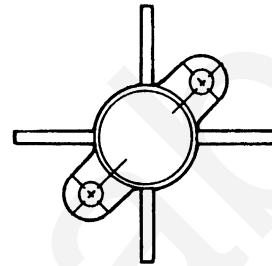
Description

M/A-COM's MA8334 series Multi-throw Switch Modules are SPDT and SP3T switches designed for use from 20 MHz to 1000 MHz. They are rated to handle 100 watts CW RF power.

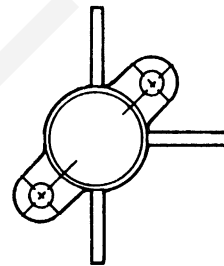
These switch modules are constructed using advanced hybrid technology and utilize PIN diode chips distinguished by their low loss and high reliability. These switch modules employ M/A-COM's high voltage CERMACHIP PIN diodes.

Applications of the MA8334 switch modules include 100 watt TR antenna and diversity switches. The semiconductor elements have been selected for low distortion performance.

Case Styles



844-004



844-001

Specifications @ T_A = +25°C

Model Number	Case Style	Maximum ³ CW Input Power (Watts)	Switch Type	Frequency Range (MHz)	Minimum ^{1,2} Isolation (dB)	Maximum ^{1,2} Insertion Loss (dB)	Diode Voltage Rating (Volts)
MA8334-001	844-001	100	SPDT	10-1000	24	0.35	900
MA8334-004	844-004	100	SP3T	10-1000	24	0.35	900

Notes:

1. For the MA8334-001 and the MA8334-004 the isolation and insertion loss at small signals is specified at 450 MHz with the "ON" branch forward biased at 50 mA and the "OFF" branch at zero bias. For "high power" reverse bias will be required on the off arm.
2. Maximum SWR for all switches is 1.35 at specified frequency.
3. Nominal thermal resistance is 20° C/W, per diode.

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Specifications Subject to Change Without Notice.

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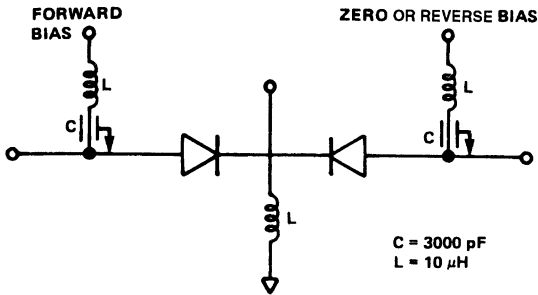
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Applications Circuits

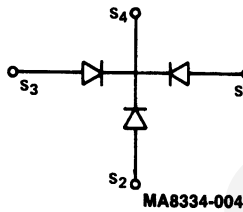
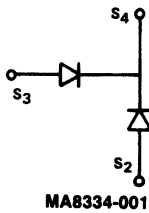
SUGGESTED BIAS CIRCUIT FOR SPDT



Maximum Ratings

Parameters	Absolute Maximum
Storage Temperature	-65°C to +125°C
Operating Temperature	-65°C to +125°C
Power Dissipation	5 watts derated to 0 watts at max. operating temperature
Voltage	Voltage Rating

Internal Wiring Diagrams



Typical Performance Curves

INSERTION LOSS AND ISOLATION vs FREQUENCY

