2-18 GHz

Value Series PIN Switches

- SPST through SP4T and Transfer
- Integral TTL Drivers
- Hermetically Sealed

Description

Narda Value Series PIN switches provide a lower cost alternative to the super slim and performance series. They are ideal for many applications where miniature size and state-of-the-art performance are not required. The circuits are well proven since they are derived from and similar to those used in the Super Slim Series.

Specifications

Reflective Switches, SMA (F), 2 to 18 GHz

<table>
<thead>
<tr>
<th>MODEL</th>
<th>TYPE</th>
<th>SWITCHING TIME MODULATION (ns)</th>
<th>BAND SEGMENTS (GHz)</th>
<th>INSERTION LOSS (dB max.)</th>
<th>VSWR (max.)</th>
<th>ISOLATION (dB min.)</th>
<th>POWER HANDLING (mW)</th>
<th>POWER SUPPLY REQUIREMENTS @+5 V</th>
<th>POWER SUPPLY REQUIREMENTS @-12 V</th>
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<tbody>
<tr>
<td>SV213DS</td>
<td>SPST</td>
<td>50</td>
<td>2-12</td>
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<td>2.0</td>
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<td>SV123DS</td>
<td>SP2T</td>
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<tr>
<td>SV143DS</td>
<td>SP4T</td>
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<td>2-12</td>
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<tr>
<td>XSV323DS</td>
<td>XFER</td>
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<td>50</td>
<td>200</td>
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Specifications
Absorptive Switches, SMA (F), 2 to 18 GHz

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<td>60</td>
<td>200</td>
<td>105</td>
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Electrical Specifications

**TTL CONTROL LOGIC**
Logic 0 (0-0.8 V, 1.6 mA max. sink @ 0.4 V) = Insertion Loss
Logic 1 (2.0-5.5 V, 40 μA max. source @ 2.4 V) = Isolation

**FOR TRANSFER SWITCH (XSV323DS)**
Logic 0: J1-J2 and J3-J4 at Insertion Loss
Logic 1: J1-J4 and J2-J3 at Insertion Loss

**SWITCHING TIME**
T on = 50% TTL to 90% of RF voltage
T off = 50% TTL to 10% of RF voltage

**SWITCHING RATE**
1 MHz max. PRF @50% duty cycle

**DRIVER**
Reverse voltage protected

**SURVIVAL POWER at 25°C (Cold Switching)**
1.0 W CW, 20 W Peak (1μs max. pulse width, 5% duty cycle)
Derate linearly to 50% at +95°C

Environmental Specifications

**TEMPERATURE**
Operating -54°C to +95°C
Storage -65°C to +125°C

**HUMIDITY**
Per MIL-STD-202F, method 103B, condition B (96 hours at 95% R.H.)

**SHOCK**
Per MIL-STD-202F, method 213B, condition B (75 G, 6 ms)

**ALTITUDE**
Per MIL-STD-202F, method 105C, condition B (50,000 feet)

**VIBRATION**
Per MIL-STD-202F, method 204D, condition B (.06” double amplitude or 15 G, whichever is less)

**THERMAL SHOCK**
Per MIL-STD-202F, method 107D, condition A (5 cycles)

Options

- Very Low Loss Video Leakage
- Inverted TTL Logic Control
- BCD Decoder Driver
- Package Configuration
- Over Voltage Protection
Outline Drawings

SV213DS, SV213DTS

SV123DS, SV123DTS

SV133DS, SV133DTS

Dimensions in inches (mm in parentheses), unless otherwise specified.
Solid State PIN Control Products

Outline Drawings

SV143DS, SV143DTS

XSV323DS

Dimensions in inches (mm in parentheses), unless otherwise specified.