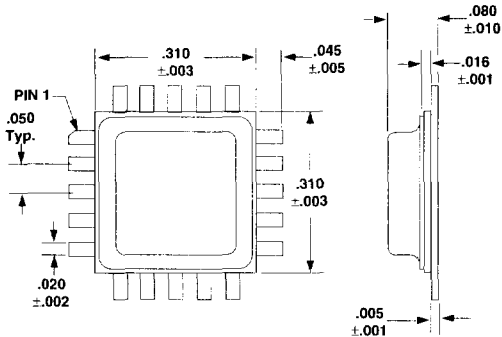


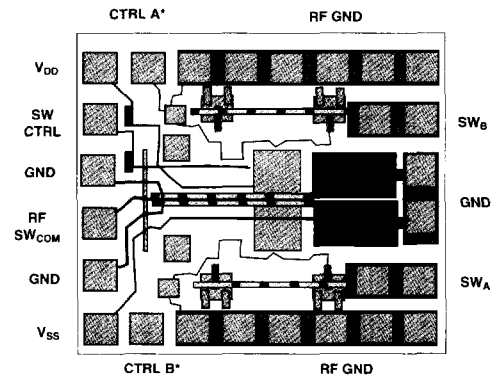
FEATURES

- DC- 10GHz Broad Bandwidth
- 50Ω Termination in OFF state
- Internal Switch Driver
- Insertion Loss 1.5 dB
- Isolation 35 dB
- Available as die, part # DSW24053D, also available in plastic, part # DSW25253P

SP2T

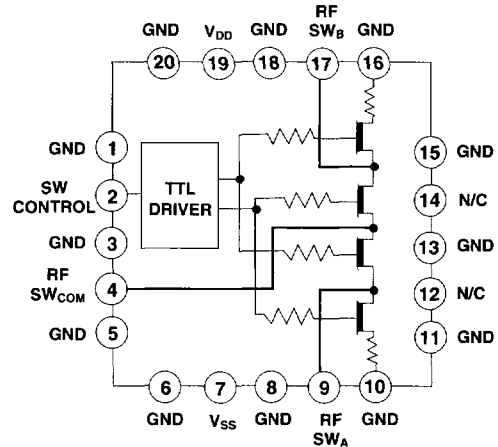
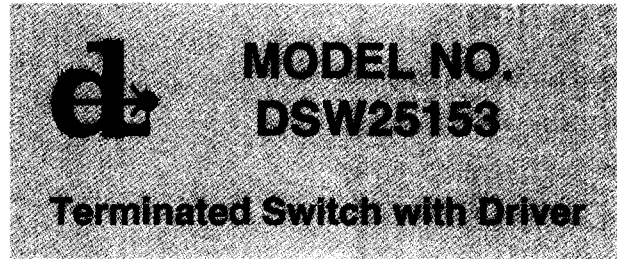
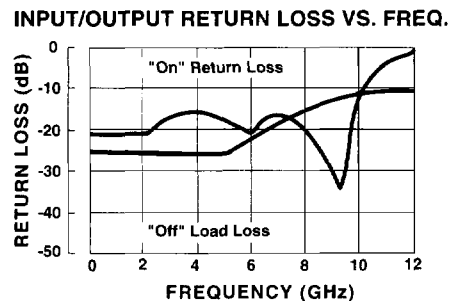
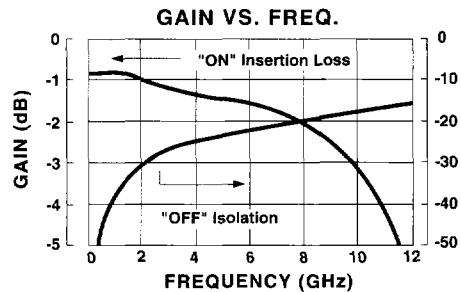


DIE DIAGRAM (54 X 43 MILS, 7 MILS THICK)



* OPTIONAL ACCESS TO SWITCH DRIVE

TYPICAL PERFORMANCE



SWITCH LOGIC

| SW CTRL | RF SW _A | RF SW _B |
|---------|--------------------|--------------------|
| LOW | ON | OFF |
| HIGH | OFF | ON |

PIN FUNCTION

| PIN NAME | PIN# | DESCRIPTION |
|----------------------|------|---|
| SW Control (TTL) | 2 | Switch Control: TTL logic input |
| RF SW _{COM} | 4 | Common RF input; DC-coupled |
| V _{SS} | 7 | V _{SS} ; Negative supply voltage |
| RF SW _A | 9 | RF input A; DC-coupled, "ON" for a logic LOW applied to SW Control |
| N/C | 12 | No Connect |
| N/C | 14 | No Connect |
| RF SW _B | 17 | RF input B; DC-coupled, "ON" for a logic HIGH applied to SW Control |
| V _{DD} | 19 | V _{DD} ; Positive supply voltage |
| GND | (1) | Ground |

Note: (1.) GND Pins are 1, 3, 5, 6, 8, 10, 11, 13, 15, 16, 18, 20

AC COUPLING MAY BE REQUIRED FOR YOUR APPLICATION

ABSOLUTE MAXIMUM RATINGS

| PARAMETER | MIN | TYP | MAX | UNITS |
|-----------------------|-----|-----|------|-------|
| DC POWER SUPPLY | | | ±7 | V |
| OPERATING TEMPERATURE | -55 | | +85 | °C |
| STORAGE TEMPERATURE | -55 | | +150 | °C |
| POWER DISSIPATION | | | 1.0 | W |

ELECTRICAL SPECIFICATIONS

T_A=25°C, V_{DD}=+5V, V_{SS}=-5V

| PARAMETER | MIN ⁽¹⁾ | TYP | MAX ⁽¹⁾ | UNITS |
|--|--------------------|-----|--------------------|-------|
| FREQUENCY OF OPERATION | DC | | 10 | GHz |
| INSERTION LOSS | | 1.5 | 3.5 | dB |
| ISOLATION - 1 GHz | 30 | 35 | | dB |
| ISOLATION - 10 GHz | 15 | 20 | | dB |
| INPUT THIRD-ORDER INTERCEPT ⁽²⁾ | | +35 | | dBm |
| INPUT/OUTPUT VSWR | | 2:1 | | |
| DC SUPPLY CURRENT @ ±5V | | 15 | 20 | mA |
| POSITIVE SUPPLY | 4.5 | 5 | 5.5 | V |
| NEGATIVE SUPPLY | -4.5 | -5 | -5.5 | V |
| POWER DISSIPATION | | 150 | 250 | mW |
| INPUT LOGIC LOW | | 1.0 | | V |
| INPUT LOGIC HIGH | | 3.0 | | V |

NOTE: 1. MIN/MAX VALUES LISTED ARE PRODUCTION TESTED
2. IP3 DECREASES BELOW 1GHz