

## DESCRIPTION

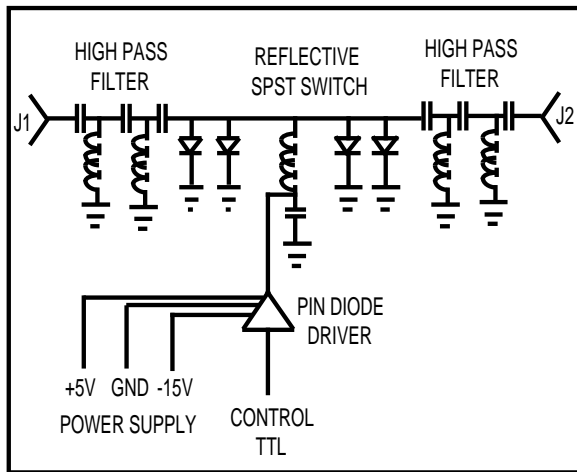
This high-speed, wide-band, high-isolation, medium power, reflective single-pole single-throw PIN diode switch with integral TTL compatible driver incorporates high pass filters at the R.F. ports to suppress video transients.

## HIGH-SPEED SPST SWITCH CMCS0337

12 nsec. Switching Speed with  
Internal Video Transient Filtering

## ELECTRICAL PERFORMANCE

## SCHEMATIC



CHARACTERISTIC	WITH DRIVER	
	MAX.	TYP.
Switching Speed (1)	12ns	8ns
Transition Time (2)	4ns	2ns
Power Handling (CW or peak)	+33 dBm	+36 dBm
Positive Supply	5V±2% 50 mA max	
Negative Supply	-15V±2% -15 mA max	
Control Impedance	TTL (1 unit loads max)	
Control Logic	1 = isolation 0 = low loss	
Video Transients (3)	10 mV	3 mV

CHARACTERISTIC	FREQUENCY (GHz)			
	2.0-4.0	4.0-8.0	8.0-12.4	12.4-18.0
INSERTION LOSS (dB max)	1.5	1.5	1.7	2.2
VSWR {On/Off} (max)	1.7	1.7	1.7	1.9
ISOLATION (dB min)	50	60	60	60

- (1) Turn-On Time is the time interval between 50% of the control voltage and 90% of the detected RF. Turn-Off Time is the time interval between 50% of the control voltage and 10% of the detected RF. Switching Speed is defined as the slower of the two times (usually the Turn-On Time).
- (2) Rise Time is the time required for the detected RF to transition between 10% and 90% of its final value. Fall Time is the time required for the detected RF to transition between 90% and 10% of its initial value. Transition Time is defined as the slower of the two times (usually the Rise Time).
- (3) Measured into a 50 ohms with a 150MHz B.W. oscilloscope.

## ENVIRONMENTAL RATINGS

### Temperature:

Operating ——— -55°C to +85°C  
 Non-operating — -65°C to +125°C

### Altitude:

MIL-STD-202C, Method 105C,  
 Cond. B (50,000ft)

### Humidity:

MIL-STD-202C, Method 103B,  
 Cond. B (96 hrs. at 95%)

### Temp Cycling:

MIL-STD-202C, Method 105C,  
 Cond. D, 5 cycles

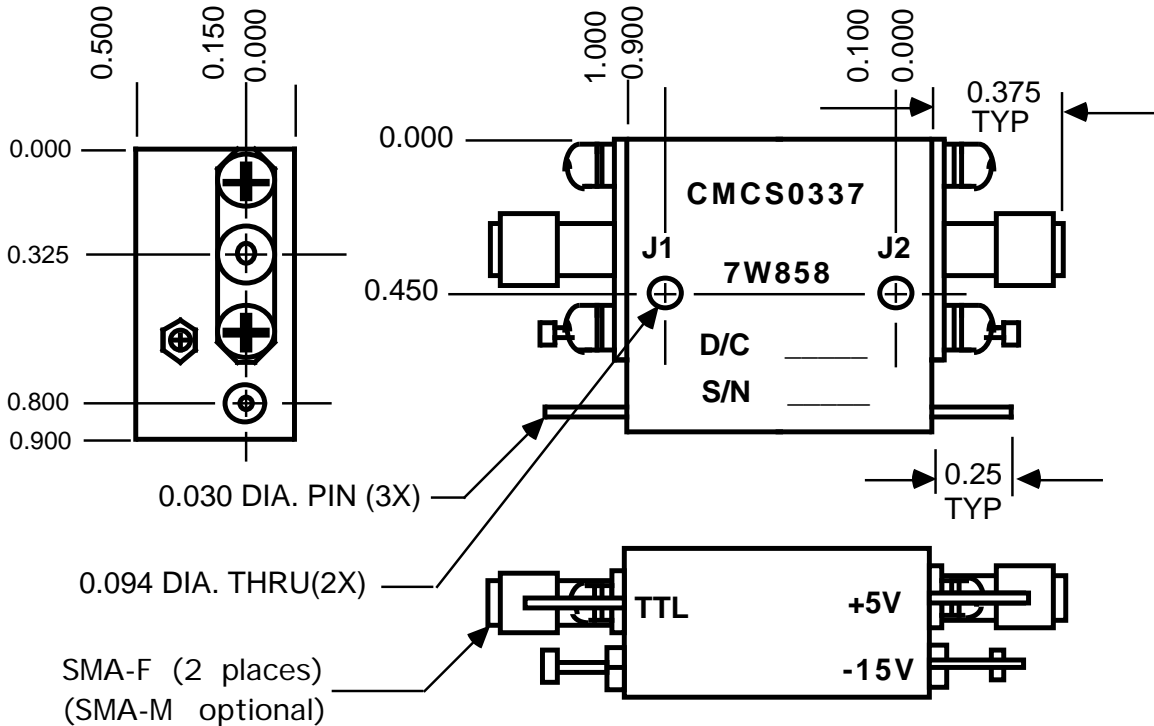
### Vibration:

MIL-STD-202C, Method 204A,  
 Cond. B (0.06" double amplitude  
 or 15G, whichever is less)

### Shock:

MIL-STD-202C, Method 213,  
 Cond. B (750G, 6ms)

## OUTLINE



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