AMERICAN MICROWAVE CORPORATION

TEST DATA

ON

0.5 TO 18.0 GHz

LOW LOSS

HIGH SPEED

LOW VIDEO TRANSIENTS (R/C)

REFLECTIVE SPST PIN DIODE SWITCH

AMC MODEL No:
SWN-0518-1DR-12X-LVT

Serial No: 1MS503170

BY
AMERICAN MICROWAVE CORPORATION

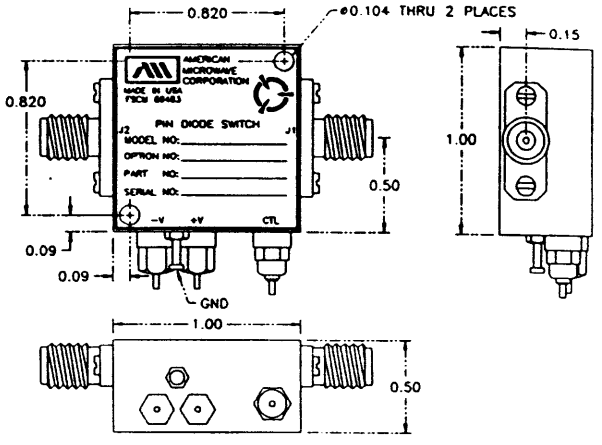
JULY 11, 1995

7311G GROVE ROAD, FREDERICK, MARYLAND 21701 • Tel. (301) 662-4700 • Fax (301) 662-4938

AMERICAN MICROWAVE CORPORATION

HIGH SPEED
LOW LOSS, REFLECTIVE
SPST PIN DIODE SWITCH

- LOW LOSS
- HIGH SPEED
- HIGH ISOLATION
- LOW VIDEO TRANSIENTS



AMC MODEL No: SWN-0518-1DR-12X-LVT

SPECIFICATIONS:

• FREQUENCY RANGE	: 0.5 GHz to 18.0 GHz
• INSERTION LOSS	: ≤2.5 dB MAX.
	: ≤0.68 dB TYP. @ 0.5 GHz
	: ≤0.43 dB TYP. @ 2.0 GHz
	: ≤0.98 dB TYP. @ 8.0 GHz
	: ≤1.63 dB TYP. @ 12.0 GHz
	: ≤2.00 dB TYP. @ 18.0 GHz
• ISOLATION	: ≥ 40 dB MIN.
	: ≥ 44 dB TYP. @ 0.5 GHz
	: ≥ 78 dB TYP. @ 2.0 GHz
	: ≥ 90 dB TYP. @ 8.0 GHz
	: ≥ 85 dB TYP. @ 12.0 GHz
	: ≥ 80 dB TYP. @ 18.0 GHz
• VSWR	: 2.0:1
• SWITCHING SPEED	: "RISE" : 15nS MAX. , 10nS TYP.
	: "FALL" : 20nS MAX. , 12nS TYP.
	: "ON" : 50nS MAX. , 25nS TYP.
	: "OFF" : 50nS MAX. , 45nS TYP.
• CONTROL	: TTL COMPATIBLE
• VIDEO TRANSIENTS	: 400 mV Peak to Peak in a 300 MHz BW
• RF INPUT POWER	: +20 dBm Operating, 1 Watt Survival
• DC POWER SUPPLY	: ±5vdc @ 80mA MAX., 60mA TYP.
• SIZE	: 1.0" X 1.0" X 0.5"
• WEIGHT	: ≤1.5 oz

MULTI-THROW AND ABSORPTIVE VERSIONS AVAILABLE

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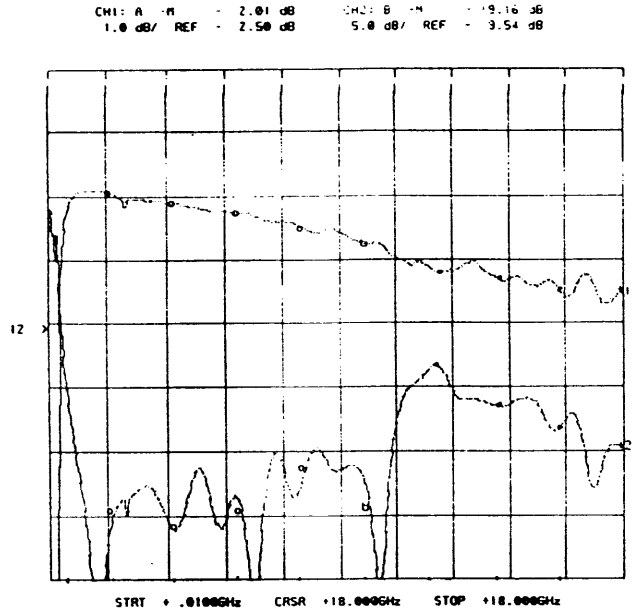
SERIAL NUMBER : 1MS503170
TECHNICIAN : RENE AFABLE
VOLTAGE & CURRENT DRAW : ±5vdc @ 60mA

INSERTION LOSS & RETURN LOSS



FREQUENCY	INSERTION LOSS	RETURN LOSS
0.5 GHz	0.68 dB	14.53 dB
2.0 GHz	0.43 dB	23.77 dB
4.0 GHz	0.59 dB	25.21 dB
6.0 GHz	0.74 dB	24.75 dB
8.0 GHz	0.98 dB	20.44 dB
10.0 GHz	1.22 dB	24.93 dB
12.0 GHz	1.63 dB	12.77 dB
14.0 GHz	1.76 dB	15.94 dB
16.0 GHz	2.01 dB	17.40 dB
18.0 GHz	2.01 dB	19.16 dB

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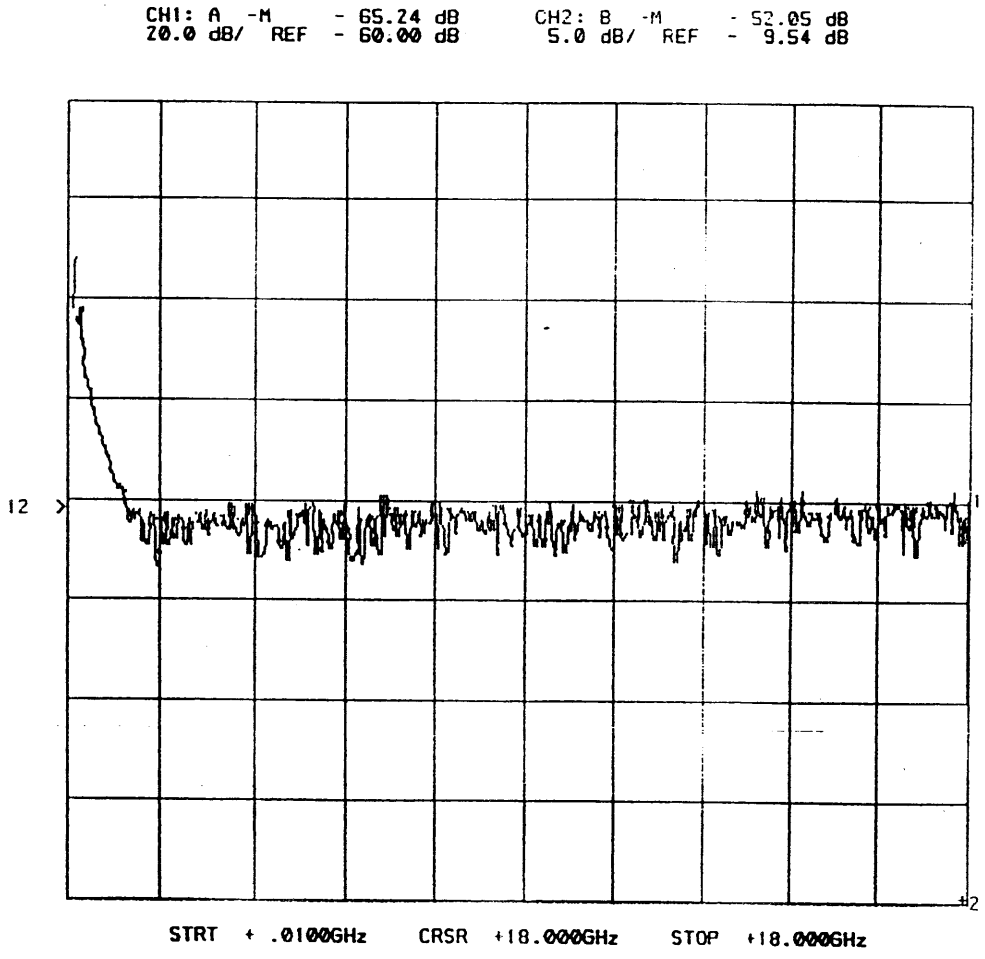
SERIAL NUMBER	: 1MS503170
TECHNICIAN	: RENE AFABLE
VOLTAGE & CURRENT DRAW	: ±5vdc @ 60mA

ISOLATION

AS MEASURED ON A NETWORK ANALYSER



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SERIAL NUMBER : 1MS503170
TECHNICIAN : RENE AFABLE
VOLTAGE & CURRENT DRAW : ±5vdc @ 60mA

ISOLATION

AS MEASURED ON A SPECTRUM ANALYSER

FREQUENCY	ISOLATION
100 MHz	48 dB
200 MHz	43 dB
300 MHz	42 dB
500 MHz	44 dB
800 MHz	54 dB
1.0 GHz	61 dB
2.0 GHz	78 dB
4.0 GHz	90 dB
6.0 GHz	90 dB
8.0 GHz	90 dB
10.0 GHz	90 dB
12.0 GHz	85 dB
14.0 GHz	84 dB
16.0 GHz	80 dB
18.0 GHz	80 dB

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SERIAL NUMBER	: 1MS503170
TECHNICIAN	: RENE AFABLE
VOLTAGE & CURRENT DRAW	: ±5vdc @ 60mA

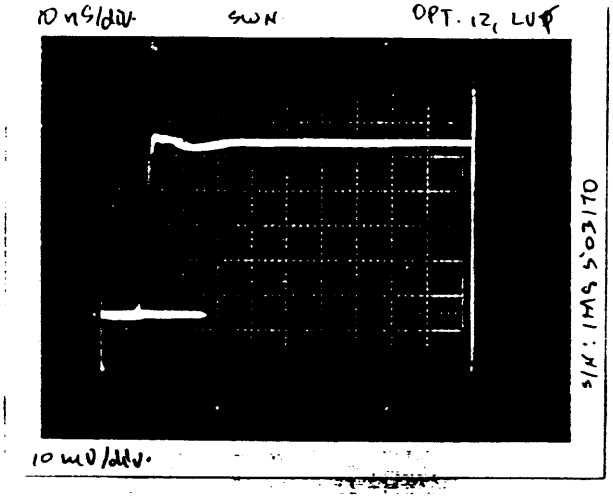
SWITCHING SPEED

"RISE/FALL" TIME: 10%RF TO 90%RF & 90%RF TO 10%RF
"ON/OFF" TIME: 50%TTL TO 90%RF OR 10%RF

"ON" 25nS, "RISE" 10nS

HORIZONTAL SCALE:
10nS/DIVISION

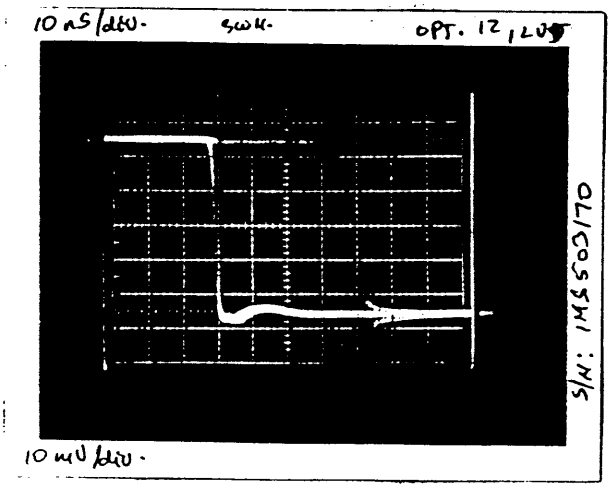
VERTICAL SCALE:
10mV/DIVISION



"OFF" 45nS, "FALL" 12nS

HORIZONTAL SCALE:
10nS/DIVISION

VERTICAL SCALE:
10mV/DIVISION



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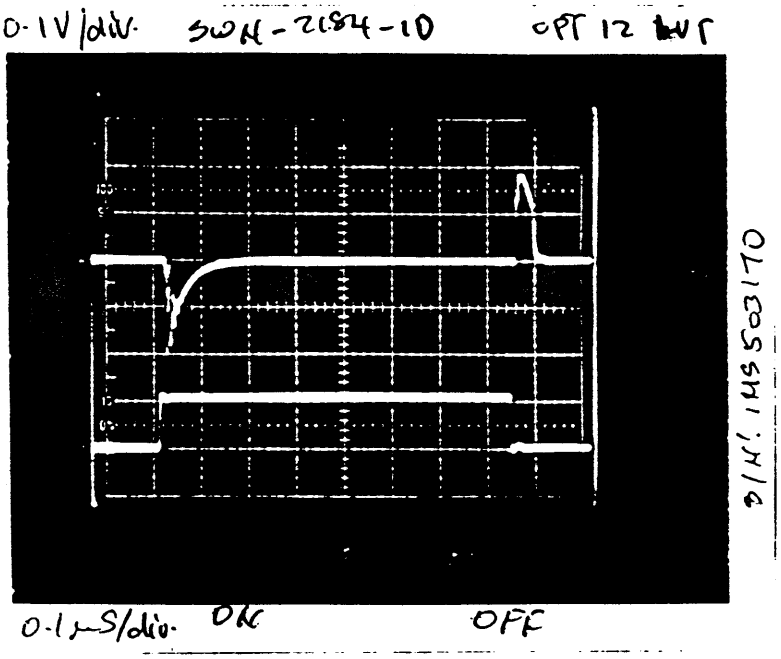
SERIAL NUMBER : 1MS503170
TECHNICIAN : RENE AFABLE
VOLTAGE & CURRENT DRAW : ±5vdc @ 60mA

VIDEO TRANSIENTS

AS MEASURED IN A
100MHz BANDWIDTH

HORIZONTAL SCALE:
0.1μS/DIVISION

VERTICAL SCALE:
0.1V/DIVISION



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