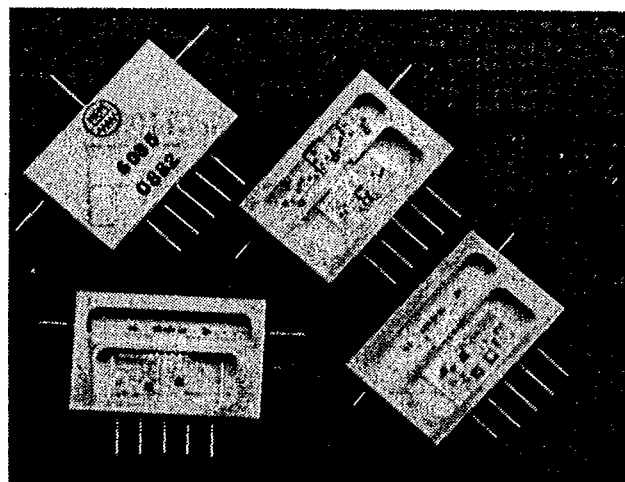


SPST DROP-IN MODULE

SERIES 6500, INTEGRAL ECL

FEATURES

- Ultra-High-Speed; Rise Time less than 1 nanosecond:
- Compact, Miniaturized; 1.000 x .650 x .130
- Reliable Thin-Film design, to meet MIL-STD-883
- Supply voltages +5, -5.2 VDC
- Hermetically sealed, operates over temperature range -55° to 125° C
- Employs ECL Logic for Ultra-Fast switching

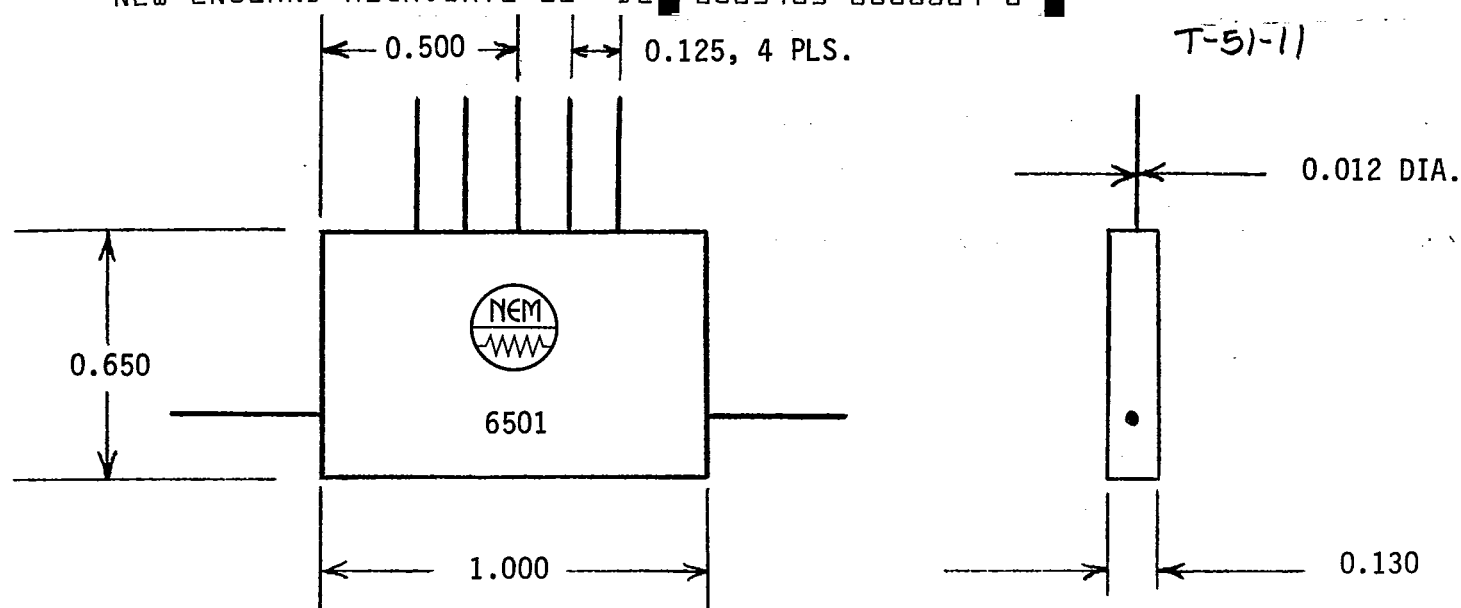


10% RF to 90% RF _____ 900 picoseconds, typical
90% RF to 10% RF

50% ECL to 90% RF _____ 7 nanoseconds, typical
90% RF to 50% ECL

SPECIFICATIONS

FREQUENCY	MODEL	INS. LOSS, MAX.	ISOLATION, MIN.	VSWR, MAX.
500 - 1000 MHZ	6501	1.5 dB	60 dB	1.2
1000 - 2000 MHZ	6502	1.5 dB	60 dB	1.2
2000 - 4000 MHZ	6503	1.5 dB	60 dB	1.5
4000 - 8000 MHZ	6504	2.0 dB	60 dB	1.7
8 - 18 GHZ	6505	2.5 dB	60 dB	2.0



PIN	CONNECTION
1	RF
2	+5 VDC
3	V _c
4	GND
5	V _c
6	-5.2 VDC
7	RF

CONTROL VOLTAGE / RF TRUTH TABLE

V _c , PIN 3	V _c , PIN 5	RF STATE
- .9	-1.75	INSERTION LOSS
-1.75	- .9	ISOLATION

The complementary outputs of the ECL Gate structure provide the -.9 V and -1.75 V inputs required. Twisted pair lines are a recommended interconnection method.

APPLICATION NOTES

NEM 6500 series switches are designed for complete compatibility with the complete series of Emitter-Coupled Logic devices. Among the most widely encountered are the MECL III and MECL 10,000 series which compare as follows:

FEATURE	MECL 10,000			MECL III
	10,100 Ser. 10,500 Ser.	10,200 Ser. 10,600 Ser.	10,800 LSI*	
1. Gate Propagation Delay	2 ns	1.5 ns	1-2.5 ns	1 ns
2. Output Edge Speed	3.5 ns	2.5 ns	3.5 ns	1 ns
3. Flip-Flop Toggle Speed	160 MHZ	250 MHZ	N.A.	300-500 MHZ
4. Gate Power	25 mW	25 mW	2.3 mW	60 mW
5. Speed Power Product	50 pJ	37 pJ	4.6 pJ	60 pJ

*Average for Equivalent LSI Gate

TO ORDER:

All standard models listed are available for immediate order. For detailed technical information as well as price and delivery, please call our Application Engineers.

If none of our standard models solve your particular switching problems, we can usually recommend a suitable model designed for special requirements. In most cases a custom unit can be implemented in several weeks from initial inquiry.

(603) 883-2900