

HIGH POWER TO 150 WCW SPST SWITCHES REFLECTIVE 0.20-18 GHz

SERIES HD

GENERAL INFORMATION:

KDI/Triangle Electronics SPST RF switches, series HD, employ carefully selected high power diodes that are soldered to the metal housing, assuring excellent electrical performance and CW power handling capability.

GENERAL SPECIFICATIONS:

- Frequency Coverage:** 0.20 to 18.0 GHz.
RF Impedance: 50 OHMS.
DC Requirements: Switches without drivers require 100 mA for 30 dB isolation switches, and 150 mA for 50 dB isolation switches max at approximately 1.0 volt for the "off" condition and -40 volts at approximately 1.0 mA for the "on" condition.
 Switches with drivers require a +5 and -40 volt supplies at +150 and -20mA. Logic is TTL "0" when "on" and "1" when "off". Different supply voltages and logic available when specified at time order is placed.
- Temperature Information:** Operating temperature from -55°C to +85°C.
- Switching Speed:** 10% to 90% or 90% to 10% of RF. There is an additional 250 nanosec of driver delay, for CW powers above 100 watts, and 200 nanosec, for 100 watts and lower.
- Environment:** MIL-E-5400, MIL-STD-202, MIL-E-16400 MIL-STD-883 (Special request only).
- Connectors:** RF connectors are SMA. Other connectors available (if specified when order is placed) include types N, TNC, and BNC.

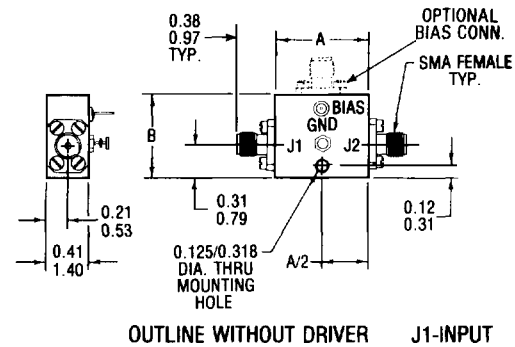
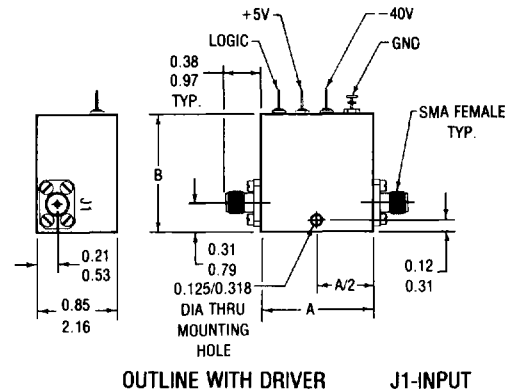
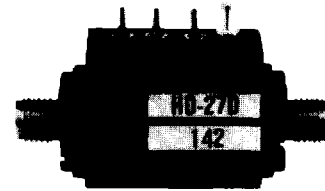
NOTES:

1. Drive connection is normally supplied as a solder feedthrough terminal. Other connectors available (if specified when order is placed) include SMA and SMC.
2. Absorptive high power switches are available, for certain models, on request. (Consult factory.)
3. If driver is required, add "D" to the model number when ordering, i.e. model HD-12, with driver, becomes HD-12D.
4. Units with faster switching speed are available on request.
5. Any unit listed can be supplied with pins instead of RF connectors. (Consult factory.)

MECHANICAL OUTLINES

Outline	A Inches cm.	B Inches cm.
1	1.20 3.05	1.26 3.20
2	0.75 1.91	0.81 2.06
3	0.75 1.91	0.56 1.42
4	1.00 2.54	1.86 4.72
5	0.75 1.91	1.86 4.72

Inches/Centimeters
 xx ± 0.3 xxx ± .010/ xx ± .08 xxx ± .025



TYPICAL MODEL NO.

HD - XX - D
 Model Series - Freq Code - Driver Option (Note 3)
 Hermetic Seal and Mil STD 883 Screening Available

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ELECTRICAL PERFORMANCE

STANDARD SWITCH

Model No.	Frequency Range GHz	Insertion Loss Max. dB	VSWR Max.	Isolation Min. dB	Switching Speed	Power Max.		Outline	
						Peak kW	CW Watts	without driver	with driver
HD-15	0.20-0.40	0.30	1.25	30	2 μ s	0.25	150	1	4
HD-16	0.20-0.40	0.50	1.25	50	2 μ s	0.25	150	1	4
HD-18	0.25-0.50	0.40	1.25	30	2 μ s	0.25	150	1	4
HD-19	0.25-0.50	0.60	1.25	50	2 μ s	0.25	150	1	4
HD-21	0.50-1.00	0.40	1.25	30	2 μ s	0.25	150	1	4
HD-22	0.50-1.00	0.60	1.25	50	2 μ s	0.25	150	1	4
HD-24	0.95-1.25	0.40	1.20	30	2 μ s	0.25	150	2	4
HD-25	0.95-1.25	0.60	1.20	50	2 μ s	0.25	150	2	4
HD-27	1.00-2.00	0.50	1.30	30	2 μ s	0.25	150	2	4
HD-28	1.00-2.00	0.65	1.30	50	2 μ s	0.25	150	2	4
HD-30	1.00-1.10	0.40	1.20	30	2 μ s	0.25	150	2	4
HD-31	1.00-1.10	0.60	1.20	50	2 μ s	0.25	150	2	4
HD-33	1.20-1.40	0.40	1.25	30	2 μ s	0.25	150	2	4
HD-34	1.20-1.40	0.60	1.25	50	2 μ s	0.25	150	2	4
HD-36	1.20-1.50	0.40	1.30	30	2 μ s	0.25	150	2	4
HD-37	1.20-1.50	0.60	1.30	50	2 μ s	0.25	150	2	4
HD-39	1.45-1.55	0.40	1.25	30	2 μ s	0.25	150	2	4
HD-40	1.45-1.55	0.60	1.25	50	2 μ s	0.25	150	2	4
HD-42	1.70-2.40	0.50	1.30	30	2 μ s	0.25	80	2	4
HD-43	1.70-2.40	0.70	1.30	50	2 μ s	0.25	80	2	4
HD-45	1.90-2.10	0.40	1.20	30	2 μ s	0.25	80	2	4
HD-46	1.90-2.10	0.60	1.20	50	2 μ s	0.25	80	2	4
HD-48	2.00-4.00	0.60	1.35	30	2 μ s	0.25	80	2	4
HD-49	2.00-4.00	0.75	1.35	50	2 μ s	0.25	80	2	4
HD-51	2.20-2.30	0.50	1.20	30	2 μ s	0.25	80	2	4
HD-52	2.20-2.30	0.65	1.20	50	2 μ s	0.25	80	2	4
HD-54	2.90-3.10	0.50	1.20	30	2 μ s	0.25	80	2	4
HD-55	2.90-3.10	0.65	1.20	50	2 μ s	0.25	80	2	4
HD-57	3.30-3.60	0.50	1.20	30	2 μ s	0.25	80	2	4
HD-58	3.30-3.60	0.65	1.20	50	2 μ s	0.25	80	2	4
HD-60	3.70-4.20	0.60	1.25	30	2 μ s	0.25	40	3	4
HD-61	3.70-4.20	0.75	1.25	50	2 μ s	0.25	40	3	4
HD-63	4.00-8.00	1.00	1.45	30	2 μ s	0.25	40	3	4
HD-64	4.00-8.00	1.20	1.45	50	2 μ s	0.25	40	3	4
HD-66	4.40-5.00	0.80	1.25	30	2 μ s	0.25	40	3	4
HD-67	4.40-5.00	1.00	1.25	50	2 μ s	0.25	40	3	4
HD-69	6.80-7.50	1.00	1.30	30	2 μ s	0.25	40	3	4
HD-70	6.80-7.50	1.20	1.30	50	2 μ s	0.25	40	3	4
HD-72	7.10-7.70	1.00	1.30	30	2 μ s	0.25	40	3	4
HD-73	7.10-7.70	1.20	1.30	50	2 μ s	0.25	40	3	4
HD-75	7.40-8.40	1.30	1.30	30	2 μ s	0.25	20	3	4
HD-76	7.40-8.40	1.50	1.30	50	2 μ s	0.25	20	3	4
HD-78	8.00-12.40	1.60	1.45	30	2 μ s	0.25	20	3	4
HD-79	8.00-12.40	1.80	1.45	50	2 μ s	0.25	20	3	4
HD-81	8.50-9.60	1.50	1.35	30	2 μ s	0.25	20	3	4
HD-82	8.50-9.60	1.70	1.35	50	2 μ s	0.25	20	3	4
HD-84	9.00-9.40	1.50	1.25	30	2 μ s	0.25	20	3	4
HD-85	9.00-9.40	1.70	1.25	50	2 μ s	0.25	20	3	4
HD-87	10.50-12.50	1.60	1.40	30	2 μ s	0.25	20	3	4
HD-88	10.50-12.50	1.80	1.40	50	2 μ s	0.25	20	3	4
HD-90	12.00-18.00	2.40	1.60	30	2 μ s	0.25	20	3	5
HD-91	12.00-18.00	2.60	1.60	50	2 μ s	0.25	20	3	5
HD-93	14.00-16.00	2.10	1.45	30	2 μ s	0.25	20	3	5
HD-94	14.00-16.00	2.30	1.45	50	2 μ s	0.25	20	3	5
HD-96	15.00-18.00	2.30	1.50	30	2 μ s	0.25	20	3	5
HD-97	15.00-18.00	2.50	1.50	50	2 μ s	0.25	20	3	5

If improvement of any of the electrical specifications listed above is required, consult factory.