



MICROWAVE

# HIGH POWER COAXIAL SWITCHES, TYPE "N"

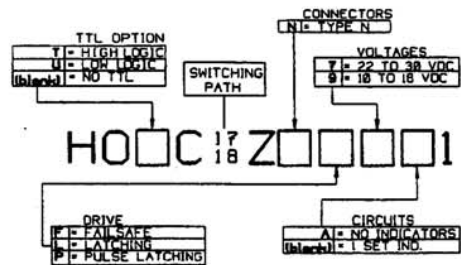
## HC 17 Z SERIES

SP7T and SP8T relay style DC to 4 GHz family.

The HC17Z and HC18Z series offers reliability and performance in SP7T and SP8T switching utilizing High Power N connectors.

This DC to 4 GHz series covers typical applications in Telecommunications, Cellular and ATE.

The following pages comprise a variety of sample models commonly used.



#8-32 UNC-2B X .38 DP  
4 MTG HOLES EQUALLY  
SPACED ON 2.665 DIA B.C.

TYPE "N" CONN  
FEMALE, 9 PLS  
MIL-C-39812  
9 PL EQUALLY  
SPACED ON 2.328  
DIA B.C.

REVISIONS				
EDN	LTR	DESCRIPTION	DATE	APPROVED

3.00 DIA

**SPECIFICATIONS**  
MICROWAVE

FREQUENCY RANGE GHz	DC TO 0.5	0.5 TO 1	1 TO 2	2 TO 3	3 TO 4
V.S.W.R. MAX	1.10:1	1.15:1	1.2:1	1.3:1	1.4:1
INSERTION LOSS MAX	0.2 dB	0.2 dB	0.2 dB	0.3 dB	0.4 dB
ISOLATION MIN	60 dB	60 dB	60 dB	70 dB	70 dB
POWER MAX CW	1120W	600	500	500	400

IMPEDANCE 50 OHM

**ELECTRICAL:**  
 VOLTAGE: 18 TO 18 VDC  
 CURRENT: 200 mA MAX @ 15 VDC @ 20°C  
 TTL LOGIC: VOLTAGE LOW 0 TO 0.8 VDC  
 CURRENT LOW 0 mA  
 VOLTAGE HIGH 2.4 TO 5.5 VDC  
 CURRENT HIGH 4.0 mA MAX @ 5V

**SWITCHING TIME:** 20 MILLISECONDS MAX.

**MECHANICAL:**  
 MATERIAL: ALUMINUM (RF ASSY)  
 RF CONTACTS: BREAK-BEFORE MAKE  
 FINISH: IRIDIUM PER MIL-C-5541  
 LIFE: 1,000,000 CYCLES MIN.

**ENVIRONMENTAL:**  
 TEMP: OPERATING 0°C TO +70°C  
 NON-OPERATING -40°C TO +100°C  
 HUMIDITY: 0 TO 95% NO CONDENSATION

Schematic shown in normally open position (see drawing)

UNLESS OTHERWISE SPECIFIED	MODEL #
DIMENSIONS PER MIL-STD-20	HOTC18ZNF91
TOLERANCES	DATE: 2/28/86
DECIMALS: .015	DESIGNED BY: [Signature]
FRACTIONS: 1/64	CHECKED BY: [Signature]
ANGLES: UNLESS OTHERWISE SPECIFIED	APPROVED BY: [Signature]
MATERIAL:	APPROVED BY: [Signature]
DATE: [Blank]	DATE: [Blank]
NEXT ASSY: [Blank]	USED ON: [Blank]
APPLICATION: [Blank]	FINISH: [Blank]

B 09080

B 10282-3

SCALE UNIT WT SHEET 1 OF 1

HOTC18ZNF91



# HIGH POWER COAXIAL SWITCHES, TYPE "N"

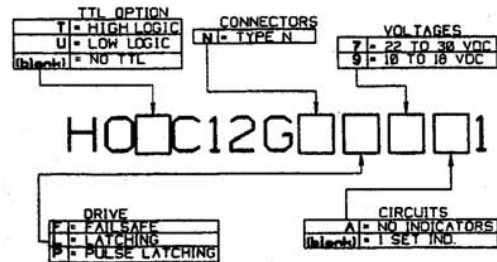
# HOC12G SERIES

SPDT Relay style DC to 4 GHz family.

The HC12G series offers reliability and performance in SPDT switching utilizing High Power "N" connector styles.

This DC to 4 GHz series covers typical applications in telecommunications, cellular, mobile radio and ATE.

The following pages comprise a variety of sample models commonly used.



INDICATOR CIRCUITRY  
 4 POS 1  
 5 IND COM  
 6 POS 2

NORMAL VOLTAGE  
 + VDC  
 -3 -RETURN  
 2 POS 2  
 1 POS 1

TTL CONTROL

IN 2  
 1  
 2  
 SCHEMATIC DIAGRAM SHOWN IN POSITION 1

REVISIONS		DATE	APPROVED
REV	LR	DESCRIPTION	

CONNECTOR TYPE "N" (FEMALE) 3 PLACES  
 .148 DIA THRU 4 HOLES  
 .888  
 .888  
 2.50  
 2.75  
 2.44  
 2.48  
 .200  
 .388  
 .63 MAX

**SPECIFICATIONS MICROWAVE**

FREQUENCY RANGE GHz	DC TO 0.5	0.5 TO 1	1 TO 2	2 TO 3	3 TO 4
V.S.W.R. MAX	1.10:1	1.15:1	1.2:1	1.3:1	1.4:1
INSERTION LOSS MAX	0.2 dB	0.2 dB	0.2 dB	0.3 dB	0.4 dB
ISOLATION MIN	20dB	20dB	20dB	20dB	20dB
POWER MAX CW	100W	100W	100W	100W	100W

IMPEDANCE: 50 OHM

ELECTRICAL:  
 VOLTAGE: 22 TO 30 VDC  
 CURRENT: 150 mA MAX @ 20 VDC @ 20°C  
 TTL LOGIC: VOLTAGE LOW: 0 TO 0.8 VDC  
 VOLTAGE HIGH: 2.4 TO 5.5 VDC  
 CURRENT LOW: 0 mA  
 CURRENT HIGH: 1.75 mA MAX @ 5 V

SWITCHING TIME: 20 MILLISECONDS MAX.

MECHANICAL:  
 MATERIAL: ALUMINUM (RF ASSY)  
 RF CONTACTS: BREAK-BEFORE MAKE  
 FINISH: IRIDIUM PER MIL-C-5541  
 PAINT: DULL BLACK ENAMEL  
 LIFE: 1,000,000 CYCLES MIN.

ENVIRONMENTAL:  
 TEMP.: OPERATING 0°C TO +70°C  
 NON-OPERATING -40°C TO +100°C  
 HUMIDITY: 0 TO 95%, NO CONDENSATION

DATE	FUNCTION	BY	CHKD	APPROVED

MODEL #	POTC12GNL71
REVISED	8/12/88 JLS
DESIGNED	8/28/88 JLS
APPROVED	
AVAIL. VS. REQ.	
APPROVED	


DESCRIPTION: HIGH POWER COAXIAL SWITCH, SPDT, TYPE "N", LATCHING, TTL W/INDICATORS

SCALE: UNIT: MKT SHEET 1 OF 1

HOC12GNL71