

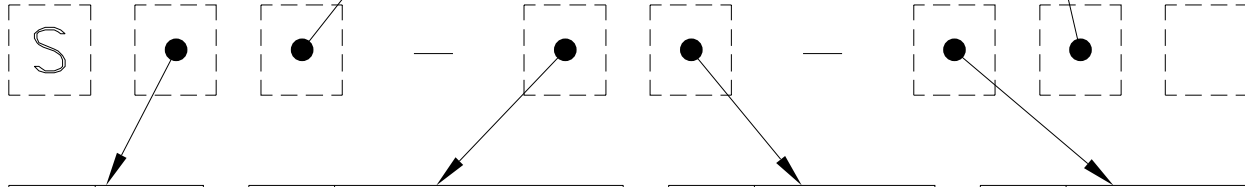
PIN DIODE SWITCHES

Broadband - High Isolation - Low Insertion Loss & V.S.W.R.

Part Numbering for REFLECTIVE and ABSORPTIVE pin diode SWITCHES

REFLECTIVE MODELS			ASORPTIVE MODELS		
CODE	CONTROL	ISOLATION	CODE	CONTROL	ISOLATION
A	TTL DRIVER	> 30 dB	L	TTL DRIVER	> 30 dB
B		> 45 dB	M		> 45 dB
C		> 60 dB	N		> 60 dB
D		> 80 dB	P		> 80 dB
E	NO DRIVER	> 30 dB	R	NO DRIVER	> 30 dB
F		> 45 dB	T		> 45 dB
G		> 60 dB	W		> 60 dB
H		> 80 dB	X		> 80 dB

SUFFIX DESIGNATOR	
CODE	DESCRIPTION
[] []	IF REQUIRED; THE FACTORY MAY ASSIGN A UNIQUE MODEL IDENTIFIER



CODE	TYPE
0	DPDT
1	SP1T
2	SP2T
3	SP3T
4	SP4T
5	SP5T
6	SP6T
7	SP7T
8	SP8T
9	SPMT

CODE	CENTER FREQUENCY
0	CLASSIFIED FREQUENCY
1	≤ 300 MHz - VHF
2	≤ 1 GHz - UHF
3	≤ 2 GHz - L
4	≤ 4 GHz - S
5	≤ 8 GHz - C
6	≤ 12.4 GHz - X
7	≤ 18 GHz - Ku
8	> 18 GHz - K

CODE	BANDWIDTH
0	≤ 5 %
1	≤ 10 %
2	≤ 20 %
3	≤ 30 %
4	≤ 40 %
5	≤ 50 %
6	> 50 %
7	C.W. FREQ.
8	≥ OCTAVE
9	MULTIOCTAVE

CODE	SWITCH SPEED
0	CUSTOM LOGIC
1	< 1 μSEC
2	< 100 nSEC
3	< 30 nSEC

$$f_c = \frac{f_h + f_l}{2}$$

$$BW = \frac{(f_h - f_l) 100}{f_c}$$

G.T. Microwave, Inc. part numbers are composed by selecting the codes for TYPE and MODEL, then calculating CENTER FREQUENCY and BANDWIDTH to obtain the codes and finally selecting the code for SWITCHING SPEED. If required, the factory may assign a unique model identifier. Use the examples to the right or consult a factory representative.

Switch, SP2T, Absorptive with 60 dB Isolation, Frequency range 2-4 GHz and 100 nSEC switching speed with TTL driver

S2N-48-2

Switch, SP8T, Absorptive with 80 dB Isolation, Frequency range 2-18 GHz and 30 nSEC switching speed with TTL driver

S8P-69-3

Environmental Ratings for pin diode SWITCHES

OPERATING TEMPERATURE RANGE -55° C to +85° C

EXPOSURE	MIL-STD-202	TEST CONDITION
ALTITUDE	METHOD 105C	C
HUMIDITY	METHOD 106E	
THERMAL SHOCK	METHOD 107D	A
LIFE TEST	METHOD 108A	D

EXPOSURE	MIL-STD-202	TEST CONDITION
SINE VIBRATION	METHOD 204D	D
RANDOM VIBRATION	METHOD 214	11D 15 min/axis
MECHANICAL SHOCK	METHOD 213B	G
TERMINAL STRENGTH	METHOD 211A	A, 2 lbs

For higher environmental levels; consult factory