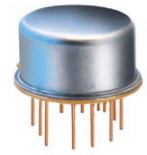


Plug-In Switch

NON-CATALOG

TOSW-425

50Ω SPDT Pin Diode, TTL Driver, 10 to 2500 MHz



CASE STYLE: QQ96

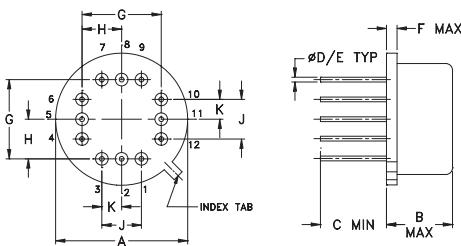
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power	L(+20 dBm), M(+28 dBm), U(+30 dBm)
Supply V	+6V max.

Pin Connections

RF IN	8
RF OUT 1	4
RF OUT 2	6
RF OUT 3	10
RF OUT 4	12
TTL-1	2
TTL-2	3
+5V	1
GROUND	5,7,9,11
CASE GROUND	5,7,9,11

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F
.600	.250	.25	.016	.020	.04
15.24	6.35	6.35	0.41	0.51	1.02
G	H	J	K		wt
.400	.200	.200	.100		grams
10.16	5.08	5.08	2.54		4.0

Features

- wideband, 10 to 2500 MHz
- hermetic, compact TO-8 can

Applications

- military, hi-rel applications
- antenna switching
- satellite communication

Switch Electrical Specifications

MODEL NO.	FREQ. (MHz)		INSERTION LOSS (dB)				IN-OUT ISOLATION (dB)					
			Low band		Upper band		Frequency Band					
			Lw		U		L		M		U	
	f_L	f_U	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.
TOSW-425	10	2500	1.1	1.7	1.5	2.5	60	40	40	30	35	22

L= low range(f_L to 10 f_L)

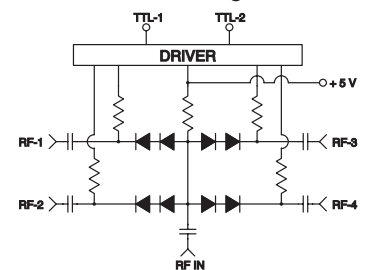
M=mid range(10 f_L to $f_U/2$)
U=low band (f_L to $f_U/2$)

U=upper range ($f_U/2$ to f_U)

Additional Specifications

VSWR("ON" STATE)	1.3 Typ., 1.9 Max.
SWITCHING TIME (μ SEC)	2.0 Typ., 4.0 Max.
SUPPLY VOLTAGE	+5V
SUPPLY CURRENT	10mA Max.
TTL INPUT HIGH THRESHOLD	2V Min.
TTL INPUT LOW THRESHOLD	0.8V Max.
1 dB COMPRESSION	10 to 100 MHz above 100 MHz
	+6 increasing to +19 dBm +19 dBm min.

Control Logic



TTL LOGIC

	TTL-1	TTL-2
RF-1	High	Low
RF-2	High	High
RF-3	Low	High
RF-4	Low	Low



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

IF/RF MICROWAVE COMPONENTS

REV. B
M120055
TOSW-425
WP/CP/AM
090116
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Typical Performance Data

FREQ. (MHz)	ON INSERTION LOSS (dB) IN-OUT		AMP. UNBALANCE (dB)		OFF ISOLATION (dB) IN-OUT		OFF ISOLATION DELTA (dB)		VSWR		
	\bar{X}	σ	\bar{X}	σ	\bar{X}	σ	\bar{X}	σ	IN	OUT	OUT (RF1) OFF
10.00	1.22	0.16	0.18	0.15	74.41	4.10	9.64	5.24	1.35	1.40	27.25
20.00	1.06	0.12	0.15	0.12	70.64	2.69	8.25	4.56	1.19	1.22	27.08
50.00	0.97	0.09	0.13	0.09	61.72	2.10	8.97	7.88	1.11	1.13	27.42
100.00	0.94	0.09	0.12	0.09	56.09	1.46	6.48	2.94	1.10	1.11	26.82
200.00	0.90	0.08	0.12	0.08	49.80	1.51	6.32	3.03	1.13	1.12	26.58
408.40	1.01	0.07	0.11	0.07	45.66	1.36	5.61	1.32	1.21	1.18	26.03
500.00	1.06	0.08	0.12	0.09	44.93	1.43	5.49	1.62	1.25	1.20	24.98
669.85	1.10	0.07	0.12	0.07	44.06	1.59	5.94	1.86	1.30	1.24	24.36
856.60	1.30	0.07	0.13	0.08	43.15	1.93	6.13	2.01	1.35	1.25	22.45
1000.00	1.39	0.05	0.11	0.07	44.52	3.69	8.35	2.97	1.37	1.24	20.59
1118.05	1.48	0.05	0.13	0.07	42.72	2.91	8.56	3.40	1.37	1.23	19.44
1250.00	1.37	0.06	0.13	0.06	42.75	2.61	10.05	4.95	1.36	1.22	19.15
1391.95	1.51	0.09	0.16	0.07	44.07	3.21	10.73	3.71	1.34	1.20	18.57
1578.70	1.47	0.05	0.15	0.05	40.41	2.62	9.61	3.27	1.31	1.16	17.15
1777.90	1.52	0.05	0.17	0.05	37.07	2.87	9.43	3.26	1.30	1.14	16.04
2002.00	1.66	0.12	0.20	0.08	34.27	3.55	9.08	1.82	1.30	1.16	13.88
2176.30	1.81	0.09	0.20	0.08	30.64	3.24	7.16	1.46	1.30	1.21	12.25
2363.05	1.82	0.07	0.19	0.04	26.86	2.95	5.63	1.07	1.28	1.28	9.41
2437.75	2.08	0.14	0.24	0.05	25.66	2.78	5.42	1.03	1.29	1.30	7.81
2500.00	2.14	0.16	0.25	0.05	25.03	2.28	5.15	1.27	1.30	1.31	7.10

