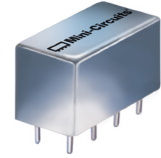


Phase Shifter

SPH-16+

50Ω 180° Voltage Variable 13 to 16 MHz



CASE STYLE: A01
PRICE: Contact Sales Dept.

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Input Power	20 dBm max.
Control Voltage	15V
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

IN	1
OUT	7
BIAS	4,6^
GROUND	2,3,5,8
CASE GROUND	2,3,5,8

^ pins must be connected together externally

Features

- low insertion loss, 1.2 dB typ.
- hermetically sealed

Applications

- signal processing

+RoHS Compliant

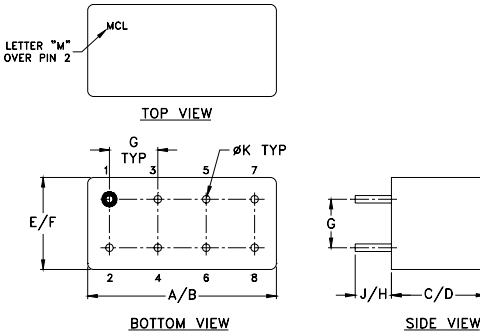
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Phase Shifter Electrical Specifications

FREQUENCY (MHz)	PHASE RANGE (Degrees)	INSERTION LOSS (dB)		CONTROL VOLTAGE (V)	CONTROL BANDWIDTH (kHz)	VSWR (:1)	
		Typ.	Max.			Typ.	Max.
13-16	180	1.2	2.5	0-7	DC-50	1.2	1.7

Maximum operating power, 0 dBm

Outline Drawing



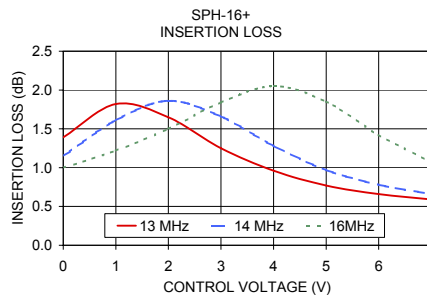
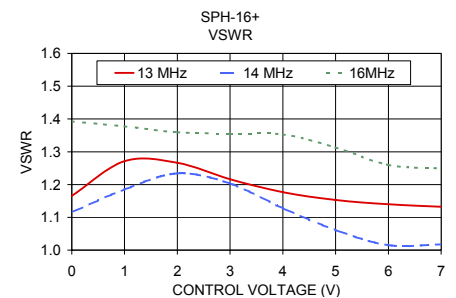
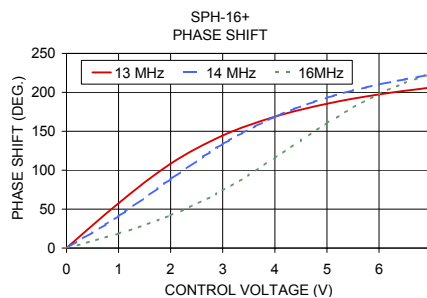
Typical Performance Data

Control Voltage (V)	Phase Shift* (Degrees)			VSWR (:1)			Insertion Loss (dB)		
	13 MHz	14 MHz	16 MHz	13 MHz	14 MHz	16 MHz	13 MHz	14 MHz	16 MHz
0.00	0.00	0.00	0.00	1.17	1.12	1.39	1.39	1.15	1.00
1.00	57.44	41.06	18.65	1.27	1.18	1.38	1.82	1.61	1.22
2.00	108.31	88.40	42.06	1.27	1.23	1.36	1.65	1.86	1.50
3.00	144.57	133.55	74.05	1.22	1.20	1.36	1.25	1.66	1.84
4.00	168.76	168.44	115.77	1.18	1.13	1.35	0.96	1.28	2.05
5.00	185.36	193.01	160.59	1.15	1.06	1.31	0.77	0.97	1.85
6.00	197.26	210.26	198.14	1.14	1.01	1.26	0.66	0.78	1.42
7.00	206.27	222.75	225.09	1.13	1.02	1.25	0.59	0.66	1.07

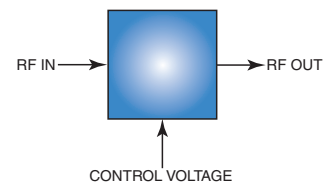
* Normalized at control voltage = 0 V

Outline Dimensions (inch/mm)

A	B	C	D	E	F
.770	.800	.385	.400	.370	.400
19.56	20.32	9.78	10.16	9.40	10.16
G	H	J	K	wt	
.200	.20	.14	.031	grams	
5.08	5.08	3.56	0.79	5.2	



electrical schematic



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

