

### Performance

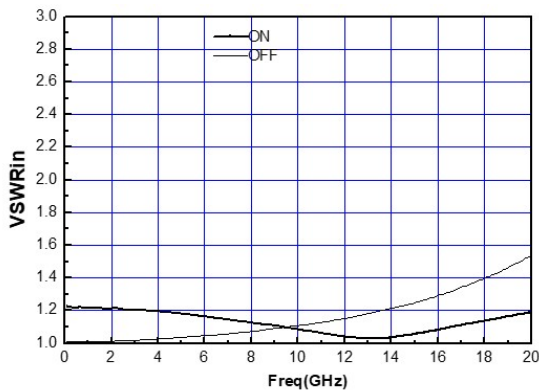
- Technology: 0.25um PHEMT
- Frequency: DC-20GHz
- Insertion Loss: 2.0dB
- Isolation: 45dB
- Input/Output VSWR: 1.3:1
- Switch time: 10ns
- Control: 0/-5V
- Chip size: 1.2\*0.96\*0.08mm

### Electrical Specifications (Ta=+25°C, V1, V2=0/-5V control, Freq: DC~20GHz, 50Ω system)

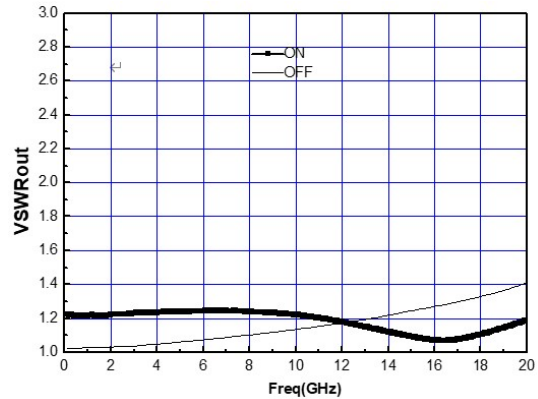
Symbol	Parameter	Min	Typical	Max	Unit
Li	Insertion Loss	-	2.0	2.5	dB
ISO	Isolation	-	-45	40	dB
VSWRin	Input VSWR	-	1.3	1.5	-
VSWRout	Output VSWR	-	1.3	1.5	-

### Test Curves (Two pieces of $\Phi 25\mu\text{m}$ , 300um length bonding lines applied)

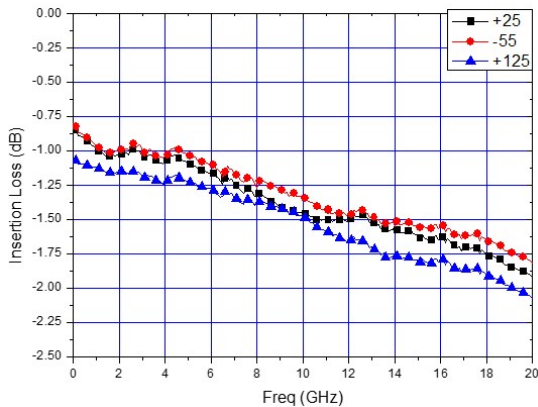
Input VSWR vs. Freq



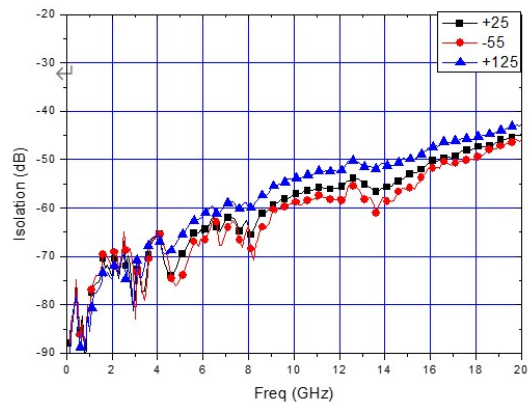
Output VSWR vs. Freq



Insertion Loss vs. Freq



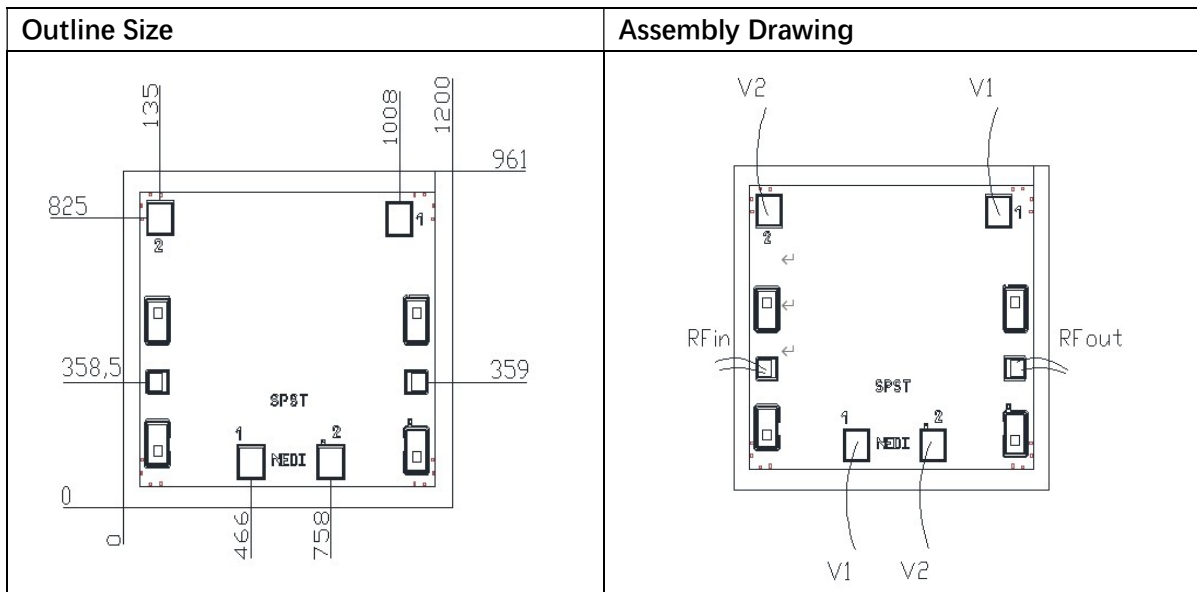
Isolation vs. Freq



**Absolute Ratings (TA=25°C)**

Symbol	Parameter	Value	Note
V1, 2	Control Voltage	0.6/-8V	
P <sub>cw</sub>	Input signal Power (cw)	25dBm	
T <sub>ch</sub>	Channel Temperature	150°C	
T	Sintering Temperature	300°C	1min, N2 protection
T <sub>stg</sub>	Storage Temperature	-55°C~150°C	

Exceed any of above condition may cause permanent damage.



**Truth Table**

V1	V2	RFin—RFout
0V	-5V	On
-5V	0V	Off

**Pad Definition**

Number	Description
RFin	RF input port, connect to 50Ω system, no block capacitor needed.
RFout	RF output port, connect to 50Ω system, no block capacitor needed.
GND	Bottom must be grounded
V1, V2	Control voltage