Frequency Doubler
High Isolation, In-line Output

Model FD9xSMx-1
Input 2.0 to 10.0 GHz
Output 4.0 to 20.0 GHz

Electrical Specifications[1]:

Parameter	Conditions		Specifications		
	Input (GHz)	Output (GHz)	Min	Typical	Max
Insertion Loss:[2]	2.0-9.0 2.0-10.0	4.0-18.0 4.0-20.0		11.0 dB 11.5 dB	13.0 dB 15.0 dB
Fundamental Isolation:[3]	2.0-10.0	4.0-10.0	25 dB	32 dB	
Third Harmonic Suppression:[4]	2.0-10.0	4.0-20.0	20 dBc	26 dBc	
Input VSWR:	2.0-5.0 5.0-10.0	4.0-10.0 10.0-20.0		2.5:1 1.8:1	
Input Power:	2.0-10.0	4.0-20.0		+11 dBm +17 dBm	FD96 FD97

Model FD9xSMx-1

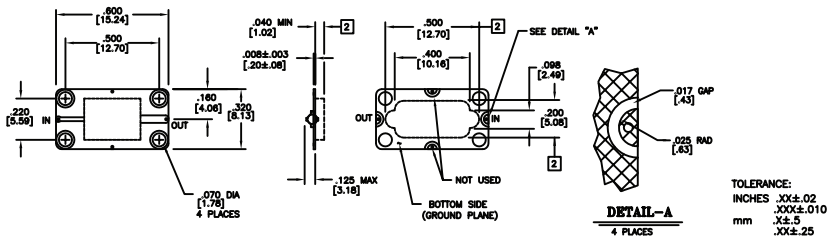
Input Power
6 = +11 dBm
7 = +17 dBm

D = No Cover
H = With Cover

Notes:
1. Specifications are guaranteed when tested as a doubler in a 50 Ohm system at +25˚C with nominal input power. Specifications indicated as typical are not guaranteed.
2. Insertion loss typically degrades less than 0.5 dB at +100˚C and improves less than 0.5 dB at -55˚C.
3. Fundamental isolation is referenced to the fundamental input.
4. Third Harmonic Suppression is referenced to the second harmonic output.

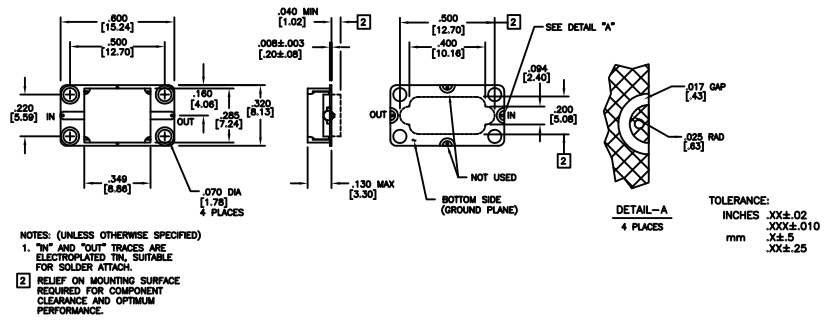
FD9xSMD-1

Outline: SMDD3



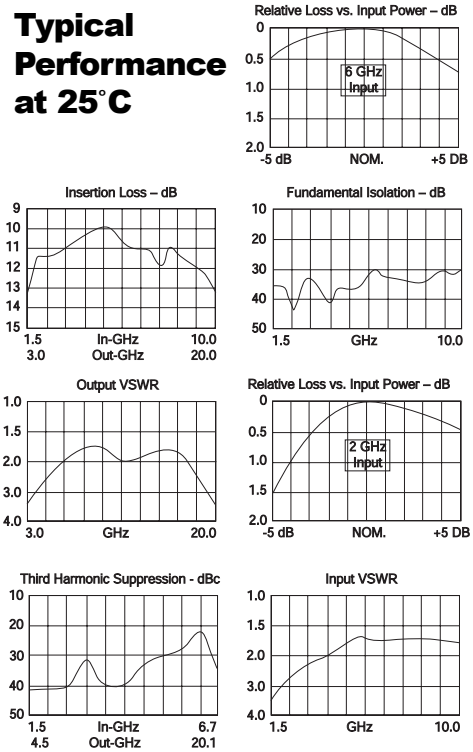
FD9xSMH-1

Outline: SMDH3



All dimensions are in inches and [mm].

Typical Performance at 25˚C



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Rev. 3/17/08