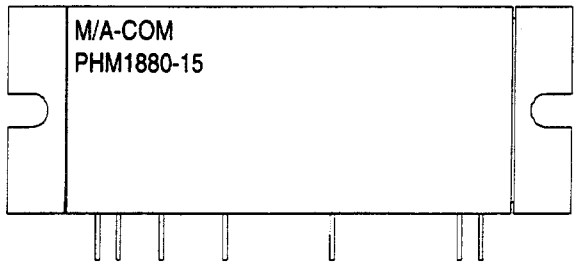
Wireless Power Module, 15W
1805 - 1880 MHz

PHM1880-15

V1.01

Features

- Linear Bipolar Wireless Hybrid Module
- GSM Base Station Applications
- Input and Output Matched to 50 Ω
- Common Emitter Configuration
- Internal TemperatureCompensated Bias Networks
- 30 dB min Gain
- Operating Voltage 24-26V



Absolute Maximum Ratings at 25°C

Parameter	Symbol	Rating	Units
Supply Voltage, Collector	V_{CC}	27	V
Supply Voltage, Base	V_{BB}	6	V
Input Power	P_{IN}	5	dBm
Output Power	P_{OUT}	20	W
Power Dissipation	P_D	60	W
Operating Case Temp.	T_C	-10 to +85	°C
Storage Temperature	T_{STG}	-40 to +125	°C

Electrical Characteristics at 25°C

Parameter	Symbol	Min	Typ	Max	Units	Test Conditions
Output Power Compression	P1dB	-	15	-	W	V_{CC}=26 V, V_{BB}=5 V, F=1805, 1880 MHz
Power Gain	G_P	30	35	-	dB	V_{CC}=26 V, V_{BB}=5 V, P_{OUT}=15 W, F=1805, 1880 MHz
Power Gain Flatness	ΔG_P	-	1.5	-	dB	V_{CC}=26 V, V_{BB}=5 V, P_{OUT}=15 W, F=1805, 1880 MHz
Overall Efficiency	η	25	30	-	%	V_{CC}=26 V, V_{BB}=5 V, P_{OUT}=15 W, F=1805, 1880 MHz
Input Return Loss	RL	10	12	-	dB	V_{CC}=26 V, V_{BB}=5 V, P_{OUT}=15 W, F=1805, 1880 MHz
Load Mismatch Stability	VSWR-S	-	-	2:1	-	V_{CC}=26 V, V_{BB}=5 V, P_{OUT}=15 W, F=1805, 1880 MHz
Load Mismatch Tolerance	VSWR-T	-	-	3:1	-	V_{CC}=26 V, V_{BB}=5 V, P_{OUT}=15 W, F=1805, 1880 MHz

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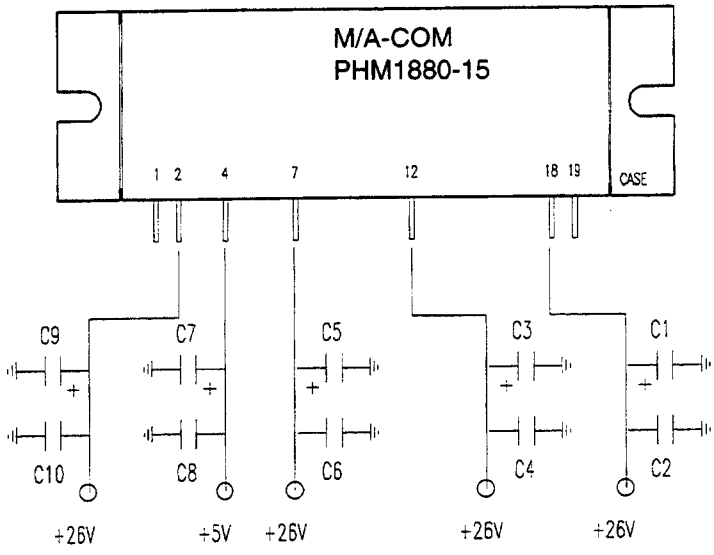
Recommended Bias Decoupling Scheme for Module

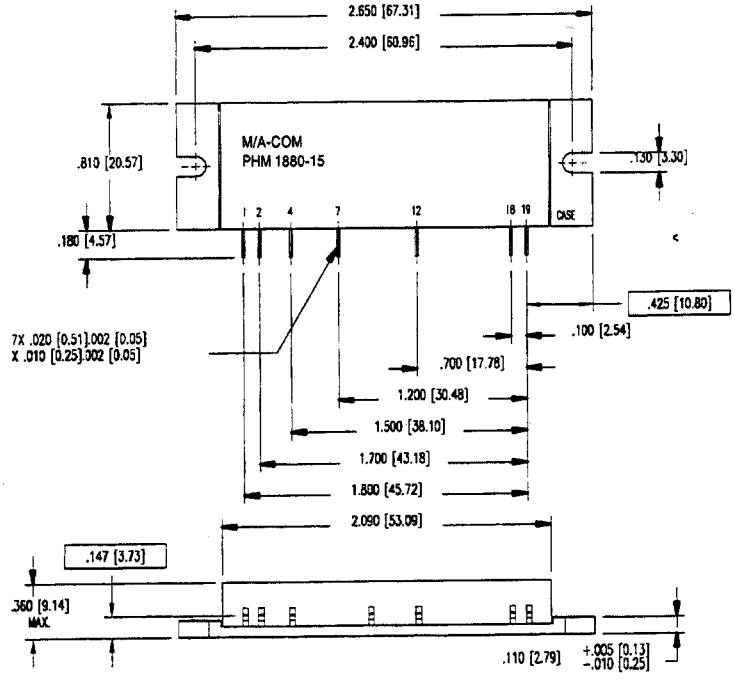


C1,C3,C5,C7,C9 = 1.0uF Tantalum Capacitors
C2,C4,C6,C8,10 = 1800pF Capacitors

Pin Configuration

Pin	Description
1	RE Input
2	VC1
4	VC2
7	V_{BB}
12	VC3
18	VC4
19	RF Output
Case	Ground

Outline Dimensions



UNLESS OTHERWISE NOTED, TOLERANCES ARE

INCHES ±.005" [MILLIMETERS ±.13MM]

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