

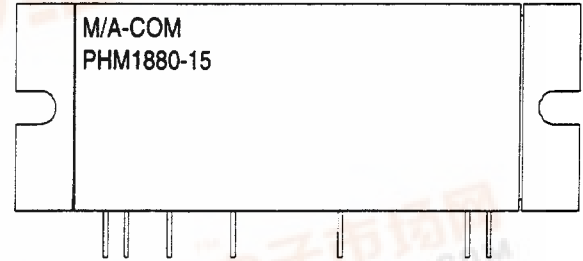
Wireless Power Module, 15W 1805 - 1880 MHz

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 Temperature Compensated Bias Networks
- 30 dB min Gain
- Operating Voltage 24-26V



Absolute Maximum Ratings at 25°C

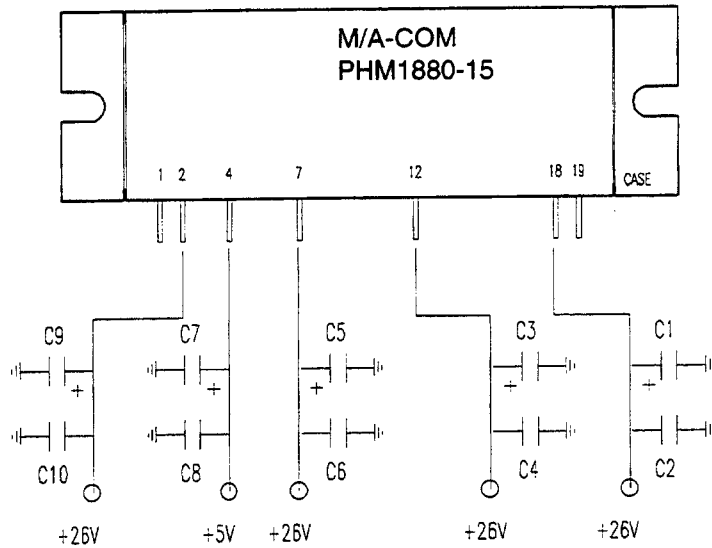
Parameter	Symbol	Rating	Units
Supply Voltage, Collector	V_{CC}	27	V
Supply Voltage, Base	V_{BB}	6	V
Input Power	P_{IN}	5	dBm
Output Power	P_{OUT}	20	W
Power Dissipation	P_D	60	W
Operating Case Temp.	T_C	-10 to +85	°C
Storage Temperature	T_{STG}	-40 to +125	°C

Electrical Characteristics at 25°C

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



Recommended Bias Decoupling Scheme for Module

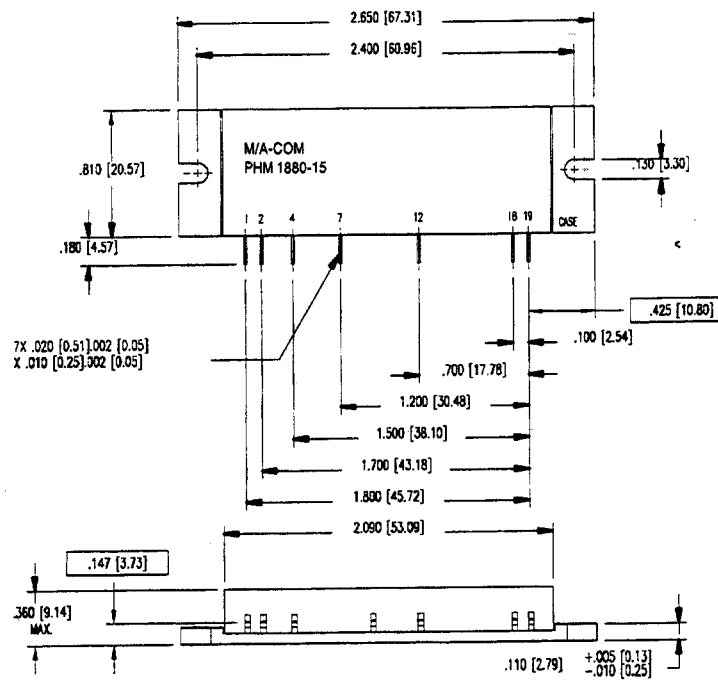


C1,C3,C5,C7,C9 = 1.0uF Tantalum Capacitors
 C2,C4,C6,C8,10 = 1800pF Capacitors

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)