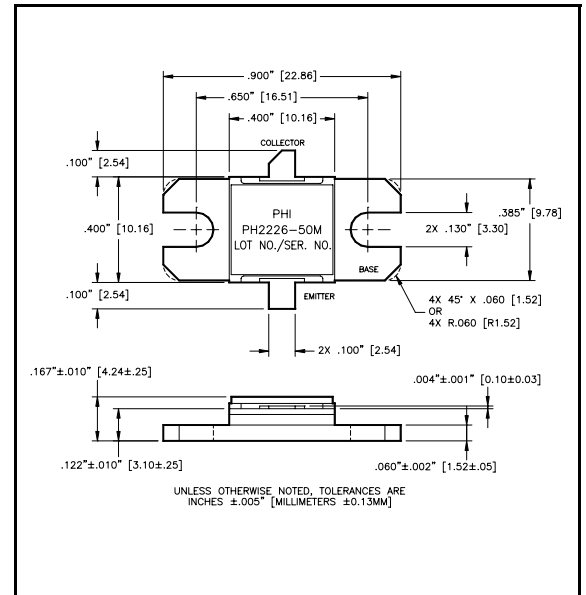


## Features

- NPN Silicon Microwave Power Transistor
- Common Base Configuration
- Broadband Class C Operation
- Diffused Emitter Ballasting Resistors
- Gold Metalization System
- Internal Input and Output Impedance Matching
- Hermetic Metal/Ceramic Package

## Outline Drawing



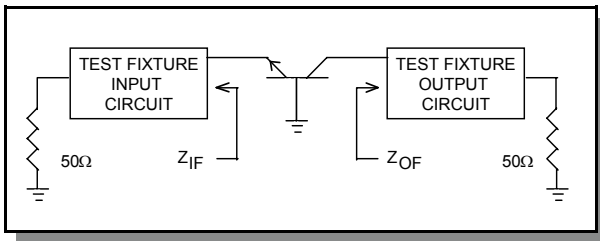
## Absolute Maximum Ratings at 25 $^{\circ}$ C

Parameter	Symbol	Rating	Units
Collector-Emitter Voltage	$V_{CES}$	63	V
Emitter-Base Voltage	$V_{EBO}$	3.0	V
Collector Current (Peak)	$I_C$	6	A
Total Power Dissipation @ +45 $^{\circ}$ C	$P_{TOT}$	159	W
Storage Temperature	$T_{STG}$	-65 to +200	$^{\circ}$ C
Junction Temperature	$T_J$	200	$^{\circ}$ C

## Electrical Characteristics at 25 $^{\circ}$ C

Parameter	Symbol	Min.	Max.	Units	Test Conditions
Collector-Emitter Breakdown Voltage	$BV_{CES}$	63	-	V	$I_C=15$ mA
Collector-Emitter Leakage Current	$I_{CES}$	-	3.0	mA	$V_{CE}=36$ V
Thermal Resistance	$R_{TH(JC)}$	-	1.1	$^{\circ}$ C/W	$V_{CC}=36$ V, $P_{IN}=8$ W, Freq= 2.25 and 2.55 GHz
Output Power	$P_O$	50	-	W	$V_{CC}=36$ V, $P_{IN}=8$ W, Freq= 2.25 and 2.55 GHz
Power Gain	$G_P$	8.0	-	dB	$V_{CC}=36$ V, $P_{IN}=8$ W, Freq= 2.25 and 2.55 GHz
Collector Efficiency	$\eta$	40	-	%	$V_{CC}=36$ V, $P_{IN}=8$ W, Freq= 2.25 and 2.55 GHz
Input Return Loss	RL	9	-	dB	$V_{CC}=36$ V, $P_{IN}=8$ W, Freq= 2.25 and 2.55 GHz
Load Mismatch Tolerance	VSWR-T	-	3:1	-	$V_{CC}=36$ V, $P_{IN}=8$ W, Freq= 2.25 and 2.55 GHz
Load Mismatch Stability	VSWR-S	-	1.5:1	-	$V_{CC}=36$ V, $P_{IN}=8$ W, Freq= 2.25 and 2.55 GHz

### Broadband Test Fixture Impedances



F (GHz)	Z <sub>IF</sub> (Ω)	Z <sub>OF</sub> (Ω)
2.25	15.0 -j7.0	12.8 -j3.0
2.40	14.0 -j5.5	12.0 -j1.6
2.55	13.7 -j4.0	11.8 -j0.4

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