

Radar Pulsed Power Transistor, 50W, 100 μ s Pulse, 10% Duty 2.2 - 2.6 GHz

PH2226-50M

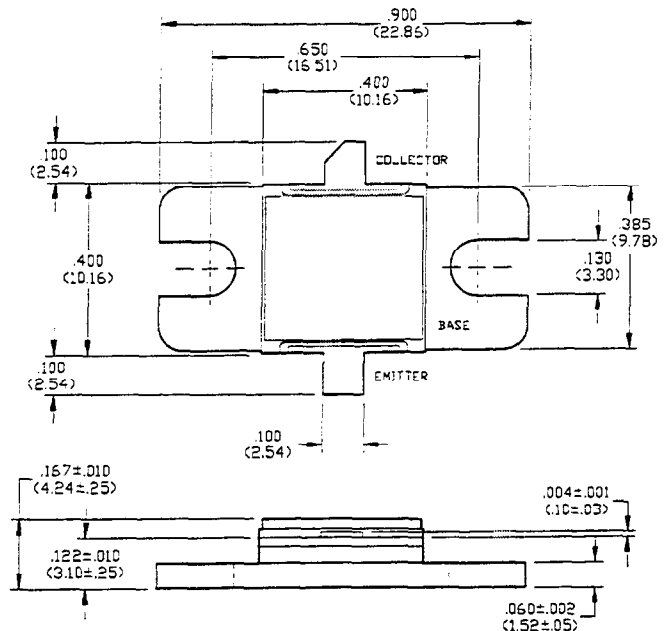
V2.00

Features

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

Absolute Maximum Ratings at 25°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	P_{TOT}	159	W
Junction Temperature	T_J	200	°C
Storage Temperature	T_{STG}	-65 to +200	°C



UNLESS OTHERWISE NOTED, TOLERANCES ARE INCHES ±.005*
(MILLIMETERS ±.13MM)

Electrical Characteristics at 25°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	°C/W	$V_{CC}=36$ V, $P_{IN}=8$ W, $F=2.2, 2.4, 2.6$ GHz
Output Power	P_{OUT}	50	-	W	$V_{CC}=36$ V, $P_{IN}=8$ W, $F=2.2, 2.4, 2.6$ GHz
Power Gain	G_P	8	-	dB	$V_{CC}=36$ V, $P_{IN}=8$ W, $F=2.2, 2.4, 2.6$ GHz
Collector Efficiency	η_C	45	-	%	$V_{CC}=36$ V, $P_{IN}=8$ W, $F=2.2, 2.4, 2.6$ GHz
Input Return Loss	RL	9	-	dB	$V_{CC}=36$ V, $P_{IN}=8$ W, $F=2.2, 2.4, 2.6$ GHz
Load Mismatch Tolerance	VSWR-T	-	3:1	-	$V_{CC}=36$ V, $P_{IN}=8$ W, $F=2.2, 2.4, 2.6$ GHz
Load Mismatch Stability	VSWR-S	-	1.5:1	-	$V_{CC}=36$ V, $P_{IN}=8$ W, $F=2.2, 2.4, 2.6$ GHz

Broadband Test Fixture Impedances

F(GHz)	$Z_{IF}(\Omega)$	$Z_{OF}(\Omega)$
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

