

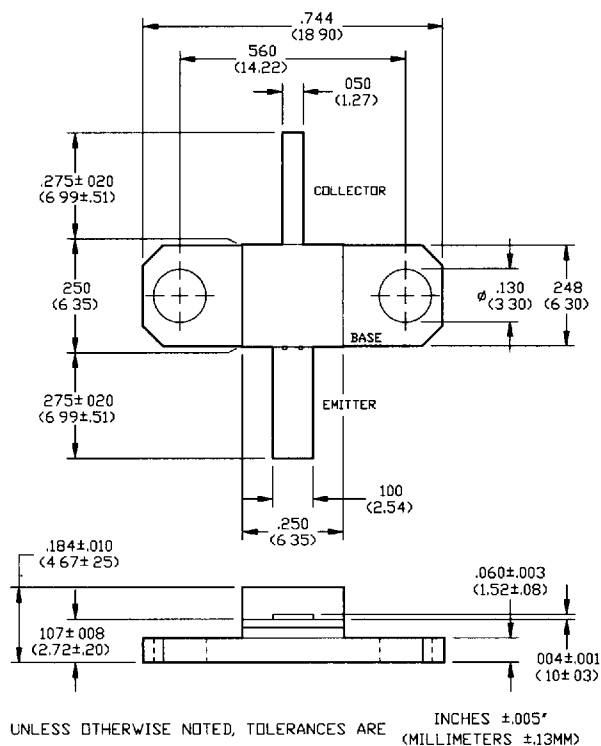
### Features

- CW Operation
- Internal Impedance Matching
- Common Base Configuration
- Multilayer Metal / Ceramic Package
- Gold Metallization System

### Absolute Maximum Ratings at 25°C

Parameter	Symbol	Rating	Units
Collector-Base Voltage	$V_{CBO}$	40	V
Collector-Emitter Voltage	$V_{CES}$	40	V
Emitter-Base Voltage	$V_{EBO}$	3.0	V
Collector Current	$I_C$	0.2	A
Power Dissipation	$P_D$	4	W
Junction Temperature	$T_J$	200	°C
Storage Temperature	$T_{STG}$	-55 to +150	°C
Thermal Resistance	$\theta_{JC}$	36	°C/W

### Outline Drawing

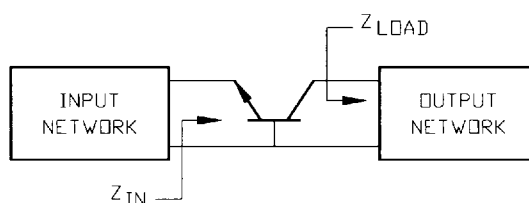


### Electrical Characteristics at 25°C

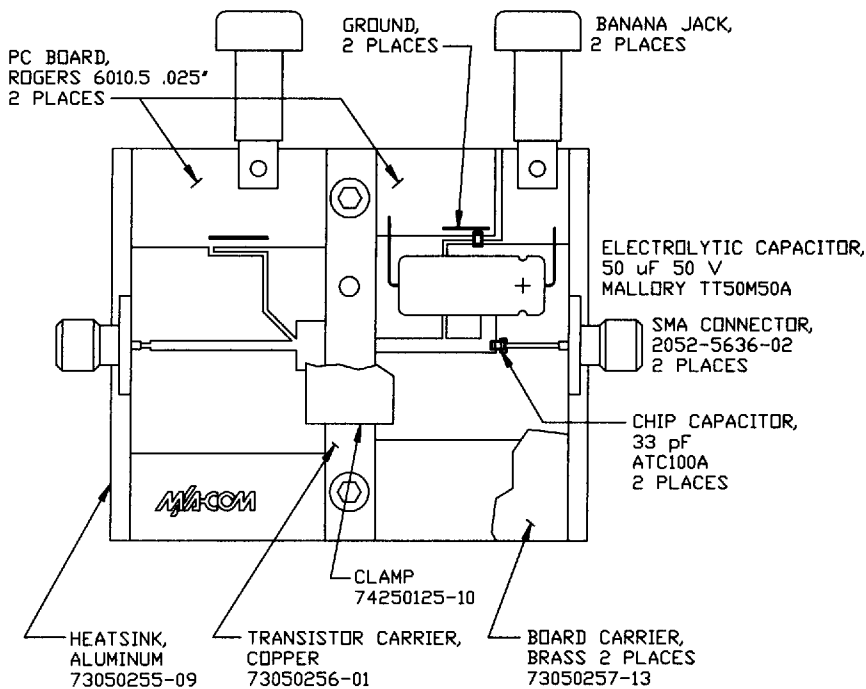
Parameter	Symbol	Min	Max	Units	Test Conditions
Collector-Emitter Breakdown Voltage	$BV_{CES}$	40	-	V	$I_C=5$ mA
Collector-Emitter Leakage Current	$I_{CES}$	-	0.5	mA	$V_{CE}=20$ V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	3.0	-	V	$I_B=5$ mA
DC Forward Current Gain	$h_{FE}$	15	120	-	$V_{CE}=5$ V, $I_C=200$ mA
Power Gain	$G_P$	8.8	-	dB	$V_{CC}=20$ V, $P_{OUT}=1.5$ W, $F=1.55, 1.60, 1.65$ GHz
Collector Efficiency	$\eta_C$	40	-	%	$V_{CC}=20$ V, $P_{OUT}=1.5$ W, $F=1.55, 1.60, 1.65$ GHz
Input Return Loss	RL	10	-	dB	$V_{CC}=20$ V, $P_{OUT}=1.5$ W, $F=1.55, 1.60, 1.65$ GHz
Load Mismatch Tolerance	VSWR-T	-	5.0:1	-	$V_{CC}=20$ V, $P_{OUT}=1.5$ W, $F=1.55, 1.60, 1.65$ GHz

### Typical Device Impedances

F(GHz)	$Z_{IN}(\Omega)$	$Z_{LOAD}(\Omega)$
1.55	$14 + j8.5$	$10.0 + j20.5$
1.60	$14 + j8.5$	$10.5 + j23$
1.65	$14 + j8.5$	$11 + j25.5$



Broadband Test Fixture Electrical Schematic



TOP VIEW

