

GAE

GREAT AMERICAN ELECTROINCS

BAL0204-125

Silicon NPN high power VHF transistor BAL0204-125 (transistor assembly) is designed for wideband push-pull power amplifiers required in AM or FM communications equipment (220-400 Mhz frequency band) for radio links applications. Suitable for use in A, AB, B, C classes.

Output Power: 125 Watt
Frequency Range: 220-400 Mhz
Voltage: 28 V
Package Type: SOT-161 (8 Lead Module)
Common Emitter Configuration
Emitter Ballasting
Input and Output Matched
Aluminum Metalization

Electrical Characteristics ($T_{CASE}=40^{\circ}C$)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
P_{out}	$f_o = 400 \text{ Mhz}/V_{cc}=28V/P_{IN}=35.7W$	125			W
G_p	$f_o = 400 \text{ Mhz}/V_{cc}=28V/P_{out}=125W$	5.5			dB
λ_c	$f_o = 400 \text{ Mhz}/V_{cc}=28V/P_{out}=125W$	50	60		%

ABSOLUTE MAXIMUM RATINGS ($T_{CASE} = 25^{\circ}C$)

SYMBOL	PARAMETERS	VALUE	UNIT
V_{CER}	Collector-Emitter Voltage $R_{EB} \leq 10\Omega$	50	V
V_{EBO}	Emitter-Base Voltage	4	V
I_c	Continuous Collector Current	17	A
P_C	Collector Power Dissipation	185*	W
T_j	Junction Temperature	160	$^{\circ}C$
$R_{th(j-c)}$	Junction-Case Thermal Resistance	0.65	$^{\circ}C/W$

*For Dynamic Operation, $T_{CASE} = 40^{\circ}C$