

## SILICON NPN MICROWAVE POWER TRANSISTOR 50 W, in the 470 – 860 MHz Range

The silicon n-p-n transistor is designed for AB Push Pull, Common Emitter from 470 to 860 MHz Applications.

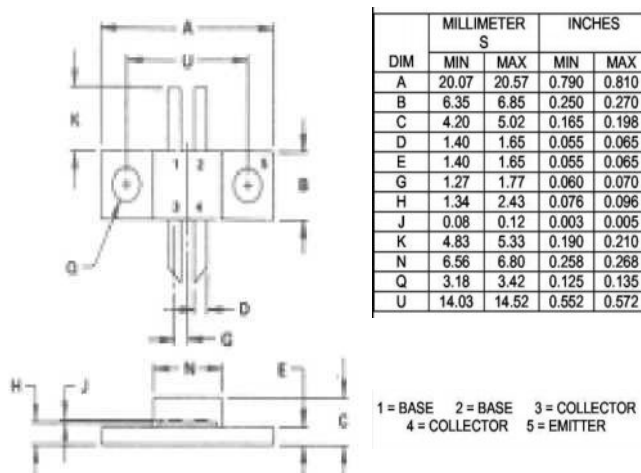
### Features:

- Power Gain: 6.5 dB Min
- Output Power: 50 W
- Efficiency: 45 % Min

### Absolute Maximum Ratings

Parameters	Sym	Value	Unit
Collector–Emitter Voltage	$V_{CEO}$	30	$V_{DC}$
Collector–Base Voltage	$V_{CBO}$	45	$V_{DC}$
Collector Current	$I_C$	9	$A_{DC}$
Operation Junction Temperature	$T_j$	$-65 \div +200$	$^{\circ}C$
Storage Temperature Range	$T_{STG}$	$-65 \div +150$	$^{\circ}C$
Thermal Resistance, Junction to Case	$R_{\theta JC}$	1.8	$^{\circ}C/W$
Total Power Dissipation, $T_C = 25^{\circ}C$	$P_D$	97	W

### PACKAGE STYLE BMA-2



### Parameters

Parameter	Symbol	Min.	Typ.	Max.	Unit
Collector–Emitter Breakdown Voltage ( $I_C = 60 \text{ mA}$ , $V_{BE} = 0 \text{ V}$ )	$V_{(BR)CEO}$	30	—	—	$V_{DC}$
Collector–Base Breakdown Voltage ( $I_C = 20 \text{ mA}$ )	$V_{(BR)CBO}$	45	—	—	$V_{DC}$
Emitter–Base Breakdown Voltage ( $I_E = 6 \text{ mA}$ , $I_C = 0 \text{ A}$ )	$V_{(BR)EBO}$	4	—	—	$V_{DC}$
Collector– Emitter Leakage Current ( $V_{CE} = 28 \text{ V}$ )	$I_{CEO}$	—	—	10	mA
DC Current Gain ( $V_{CE} = 20 \text{ V}$ , $I_C = 800 \text{ mA}$ )	$h_{FE}$	10	—	100	
Output Capacitance ( $V_{CB} = 28 \text{ V}$ , $I_E = 0 \text{ A}$ , $f = 1 \text{ MHz}$ )	$C_{OB}$	—	—	40	pF
Power Gain ( $V_{CE} = 28 \text{ V}$ , $I_C = 2 \times 50 \text{ mA}$ , $f = 860 \text{ MHz}$ , $P_{OUT} = 50 \text{ W}$ )	Gp	6.5	—	—	dB
Drain Efficiency ( $V_{CE} = 28 \text{ V}$ , $I_C = 2 \times 50 \text{ mA}$ , $f = 860 \text{ MHz}$ , $P_{OUT} = 50 \text{ W}$ )	$\eta_C$	45	—	—	%

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