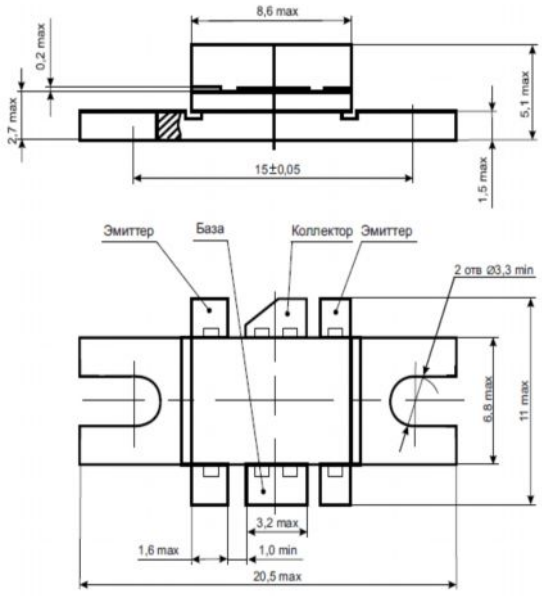
Syntez Microelectronics

KT9188A

SILICON BIPOLAR NPN POWER TRANSISTOR
10 W, in the 100 – 470 MHz Frequency Range

The silicon bipolar n-p-n transistor is designed for wideband large–signal output and driver amplifier stages in the 100 to 470 MHz frequency range.

Features (At 470 MHz):
- Output Power: 10 W
- Power Gain: 6 dB Min
- Efficiency: 55% Min



Case KT-83

Absolute Maximum Ratings

Parameters	Sym	Value	Unit
Collector-Base Voltage	V_{CBO}	36	V_{DC}
Emitter–Base Voltage	V_{EBO}	3	V_{DC}
Collector Current	I_C	2.0	A_{DC}
Operation Junction Temperature	T_j	-65 ÷ +200	ºC
Storage Temperature Range	T_{STG}	-65 ÷ +150	ºC
Thermal Resistance, Junction to Case	$R_{\theta JC}$	4	°C/W
Total Power Dissipation, T_C=25 ºC	P_D	44	W

Parameters

Parameter	Symbol	Min.	Typ.	Max.	Unit
Collector–Emitter Breakdown Voltage (I_C = 50 mA, V_{BE} = 0 V)	$V_{(BR)CES}$	36	—	—	V_{DC}
Emitter–Base Breakdown Voltage (I_E = 5 mA, I_C = 0 A)	$V_{(BR)EBO}$	3	—	—	V_{DC}
Collector– Base Leakage Current (V_{CB} = 20 V, I_E =0 A)	I_{CBO}	—	—	10	mA_{DC}
DC Current Gain (V_{CE} = 10 V, I_C = 0. A)	h_{FE}	20	—	100	
Output Capacitance (V_{CB} = 7.5 V, I_E = 0.1 A, f = 1 MHz)	C_{OB}	—	—	34	pF
Power Gain (V_{CC} = 7.5 V, f = 470 MHz, P_{OUT} = 10W)	Gp	6	—	—	dB
Drain Efficiency (V_{CC} = 7.5 V, f = 470 MHz, P_{OUT} = 10 W)	η	55	—	—	%

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