SYNTEZ MICROELECTRONICS

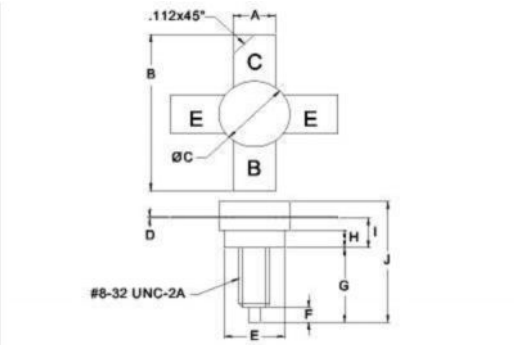
BLY89C

SILICON BIPOLAR NPN POWER TRANSISTOR
25 W, up to 175 MHz

The silicon bipolar n-p-n transistor is designed for Class C, 28 V High Band Applications up to 175 MHz.

Features (At 175 MHz):
- Output Power: 25 W
- Power Gain: 6 dB Min
- Efficiency: 70% Min

PACKAGE STYLE .380 4L STUD



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B	.980 / 24.89	
C	.370 / 9.40	.385 / 9.78
D	.004 / 0.10	.007 / 0.18
E	.320 / 8.13	.330 / 8.38
F	.100 / 2.54	.130 / 3.30
G	.450 / 11.43	.490 / 12.45
H	.090 / 2.29	.100 / 2.54
I	.155 / 3.94	.175 / 4.45
J		.750 / 19.05

Absolute Maximum Ratings

Parameters	Sym	Value	Unit
Collector–Emitter Voltage	V_{CEO}	18	V_{DC}
Collector-Base Voltage	V_{CBO}	36	V_{DC}
Emitter–Base Voltage	V_{EBO}	4	V_{DC}
Collector Current	I_C	6	A_{DC}
Operation Junction Temperature	T_j	-65 ÷ +200	ºC
Storage Temperature Range	T_{STG}	-65 ÷ +150	ºC
Thermal Resistance, Junction to Case	$R_{\theta JC}$	2.4	°C/W
Total Power Dissipation, T_C=25 ºC	P_D	73	W

Parameters

Parameter	Symbol	Min.	Typ.	Max.	Unit
Collector–Emitter Breakdown Voltage (I_C = 50 mA, V_{BE} =0 V)	$V_{(BR)CEO}$	18	—	—	V_{DC}
Collector–Emitter Breakdown Voltage (I_C = 25 mA, R_{BE} = 10 Ω)	$V_{(BR)CER}$	36	—	—	V_{DC}
Emitter–Base Breakdown Voltage (I_E = 10 mA, I_C = 0 A)	$V_{(BR)EBO}$	4	—	—	V_{DC}
Collector–Base Leakage Current (V_{CB} = 18 V)	I_{CBO}	—	—	10	mA_{DC}
DC Current Gain (V_{CE} = 5 V, I_C = 1.25 A)	h_{FE}	10	—	100	
Output Capacitance (V_{CB} = 15 V, I_E = 0, f = 1 MHz)	C_{OB}	—	—	130	pF
Power Gain (V_{CE} = 12.5 V, P_{OUT} = 25 W, f = 175 MHz)	Gp	6	—	—	dB
Drain Efficiency (V_{CE} = 12.5 V, P_{OUT} = 25 W, f = 175 MHz)	η_C	70	—	—	%

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