SYNTEZ MICROELECTRONICS

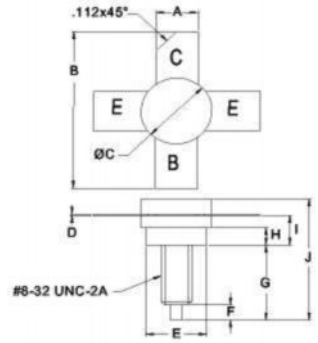
2N5635

SILICON BIPOLAR NPN POWER TRANSISTOR
2.5 W, up to 400 MHz

The silicon bipolar n-p-n transistor is designed for UHF communications transmitters.

Features (At 400 MHz):
- Output Power: 2.5 W
- Power Gain: 8.5 dB Typ
- Efficiency: 50% 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}	35	V_{DC}
Collector-Base Voltage	V_{CBO}	60	V_{DC}
Emitter–Base Voltage	V_{EBO}	4	V_{DC}
Collector Current	I_C	1	A_{DC}
Operation Junction Temperature	T_j	-65 ÷ +200	ºC
Storage Temperature Range	T_{STG}	-65 ÷ +150	ºC
Thermal Resistance, Junction to Case	$R_{\theta JC}$	23.3	°C/W
Total Power Dissipation, T_C=25ºC	P_D	7.5	W

Parameters

Parameter	Symbol	Min.	Typ.	Max.	Unit
Collector–Emitter Breakdown Voltage (I_C = 100 mA, I_B =0 A)	$V_{(BR)CEO}$	35	—	—	V_{DC}
Collector–Emitter Breakdown Voltage (I_C = 100 mA, V_{BE} = 0 V)	$V_{(BR)CER}$	60	—	—	V_{DC}
Emitter–Base Breakdown Voltage (I_E = 1 mA, I_C = 0 A)	$V_{(BR)EBO}$	4	—	—	V_{DC}
Collector– Base Leakage Current (V_{CB} = 30 V, I_E =0 A)	I_{CBO}	—	—	0.10	mA_{DC}
DC Current Gain (V_{CE} = 5 V, I_C = 100 mA)	h_{FE}	5	—	100	
Output Capacitance (V_{CB} = 30 V, I_C = 0 A, f = 1 MHz)	C_{OB}	—	—	10	pF
Power Gain (V_{CE} = 28 V, f = 400 MHz, P_{OUT} = 2.5 W)	Gp	—	8.5	—	dB
Drain Efficiency (V_{CE} = 28 V, f = 400 MHz, P_{OUT} = 2.5 W)	η	50	—	—	%

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