

2SA1930

Power Amplifier Applications

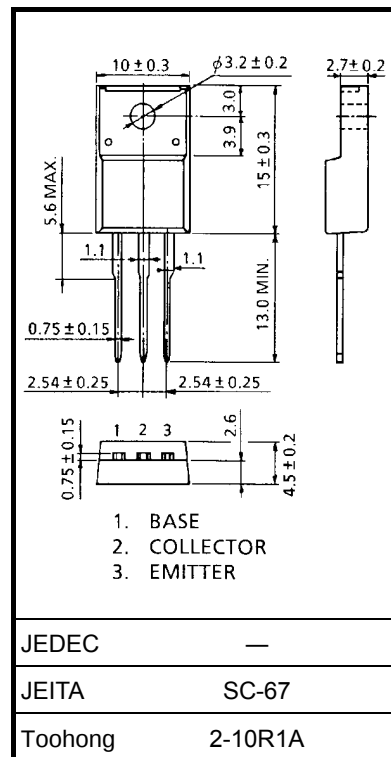
Driver Stage Amplifier Applications

Unit: mm

- High transition frequency: $f_T = 200 \text{ MHz (typ.)}$
- Complementary to 2SC5171

Absolute Maximum Ratings ($T_c = 25^\circ\text{C}$)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-180	V
Collector-emitter voltage	V_{CEO}	-180	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-2	A
Base current	I_B	-1	A
Collector power dissipation	$T_a = 25^\circ\text{C}$	P_C 2.0	W
	$T_c = 25^\circ\text{C}$	20	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to 150	$^\circ\text{C}$



Electrical Characteristics (T_c = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I _{CBO}	V _{CB} = -180 V, I _E = 0	—	—	-5.0	μA
Emitter cut-off current	I _{EBO}	V _{EB} = -5 V, I _C = 0	—	—	-5.0	μA
Collector-emitter breakdown voltage	V _{(BR) CEO}	I _C = -10 mA, I _B = 0	-180	—	—	V
DC current gain	h _{FE} (1)	V _{CE} = -5 V, I _C = -0.1 A	100	—	320	
	h _{FE} (2)	V _{CE} = -5 V, I _C = -1 A	50	—	—	
Collector-emitter saturation voltage	V _{CE (sat)}	I _C = -1 A, I _B = -0.1 A	—	-0.24	-1.0	V
Base-emitter voltage	V _{BE}	V _{CE} = -5 V, I _C = -1 A	—	-0.68	-1.5	V
Transition frequency	f _T	V _{CE} = -10 V, I _C = -0.3 A	—	200	—	MHz
Collector output capacitance	C _{ob}	V _{CB} = -10 V, I _C = 0, f = 1 MHz	—	26	—	pF

