2SC2085

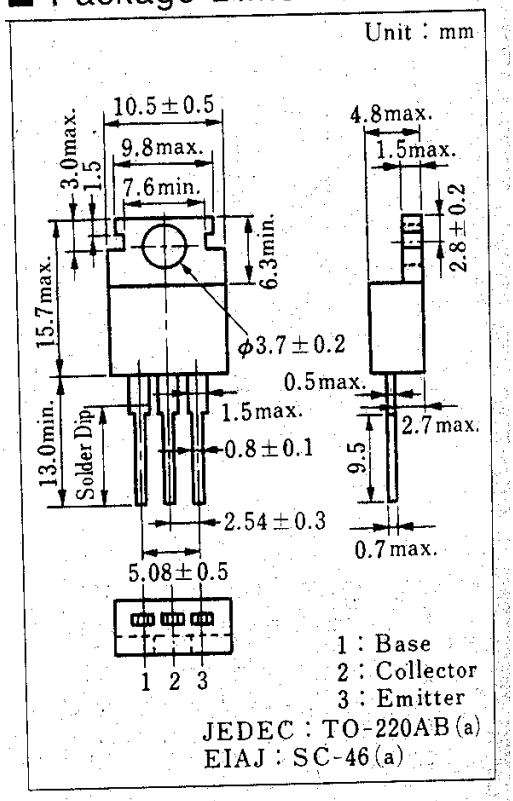
Silicon PNP Triple-Diffused Planar Type

Line-Operated AF Amplifier
Chrominance Output

■ Features

- 1W output in class-A operation
- Large collector power dissipation (P_C)

■ Package Dimensions



■ Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Value	Unit
Collector-base voltage	V_{CBO}	300	V
Collector-emitter voltage ($R_{BE} \leq 3$ kΩ)	V_{CER}	300	V
Emitter-base voltage	V_{EBO}	5	V
Peak collector current	I_{CP}	150	mA
Collector current	I_C	100	mA
Collector power dissipation (Tc=70°C)	P_C	10	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	−55～+150	℃

■ Electrical Characteristics (Tc=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CEO}	V_{CE}=300 V, I_B=0			20	μA
Collector-emitter voltage	V_{CER}	I_C=5 mA, R_{BE}=3kΩ	300			V
Emitter-base voltage	V_{EBO}	I_E=0.1 mA, I_C=0	5			V
DC current gain	h_{FE1}	V_{CE}=10 V, I_C=10 mA	30			
	h_{FE2}*	V_{CE}=10 V, I_C=50 mA	30		150	
Base-emitter voltage	V_{BE}	V_{CE}=10 V, I_C=50 mA			1.2	V
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=100 mA, I_B=10 mA			5	V
Transition frequency	f_T	V_{CB}=30V, I_E=−20mA, f=200MHz		55		MHz
Collector output capacitance	C_{ob}	V_{CB}=30 V, I_E=0, f=1 MHz		8		pF
Base resistance	r_{bb}	V_{CB}=50 V, I_C=20 mA		10		Ω

*h_{FE2} Classifications

Class	P	Q	R
h_{FE2}	30～60	50～100	80～150