2SC1953

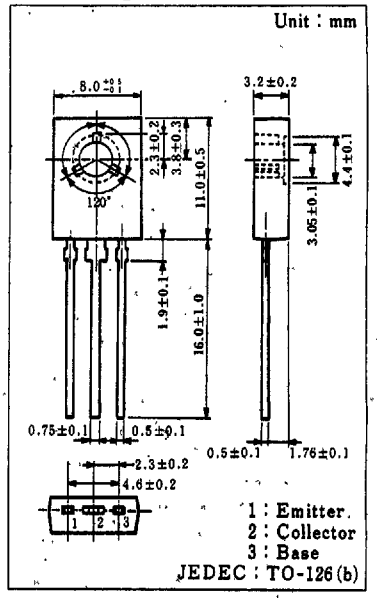
Silicon NPN Epitaxial Planar Type

AF Power Pre-Amplifier
Complementary Pair with 2SA914

■ Features

- High collector-emitter voltage (V_{CEO})
- Small collector output capacitance (C_{ob})
- Optimum for 60~100W pre-driver in complementary pair with 2SA914

■ Package Dimensions



■ Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Value	Unit
Collector-base voltage	V_{CBO}	150	V
Collector-emitter voltage	V_{CEO}	150	V
Emitter-base voltage	V_{EBO}	5	V
Peak collector current	I_{CP}	100	mA
Collector current	I_C	50	mA
Collector power dissipation	P_C	1.2*	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	−55~+150	℃

* Without heat sink

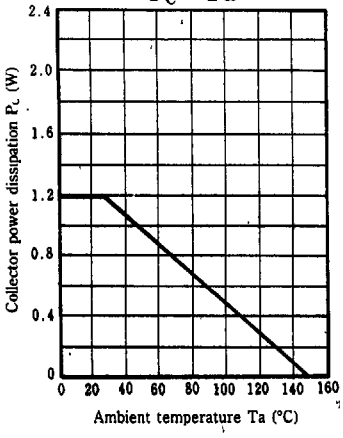
■ Electrical Characteristics (Tc=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CBO}	V_{CB}=100 V, I_E=0			1	μA
Collector-emitter voltage	V_{CEO}	I_C=100 μA, I_B=0	150			V
Emitter-base voltage	V_{EBO}	I_E=10μA, I_C=0	5			V
DC current gain	h_{FE}*	V_{CE}=5 V, I_C=10 mA	90		450	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=30 mA, I_B=3 mA			1	V
Transition frequency	f_T	V_{CB}=10V, I_E=−10mA, f=200MHz	70			MHz
Collector output capacitance	C_{ob}	V_{CB}=10 V, I_E=0, f=1 MHz			3	pF

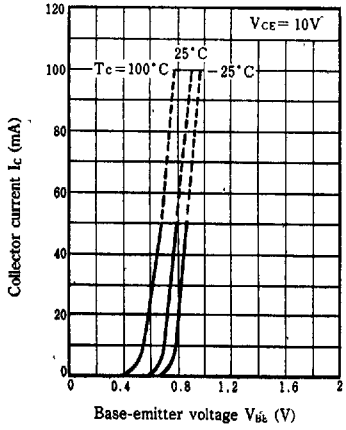
*h_{FE} Classifications

Class	Q	R	S	T
h_{FE}	90~155	130~220	185~330	260~450

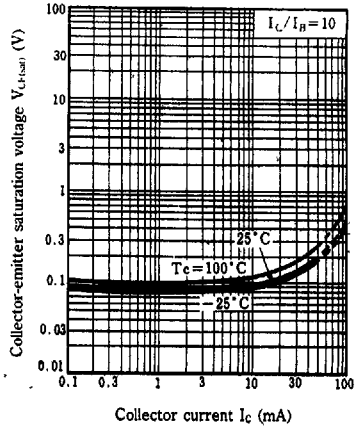
$P_C - Ta$



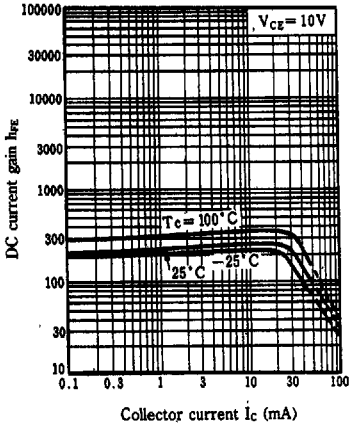
$I_C - V_{BE}$



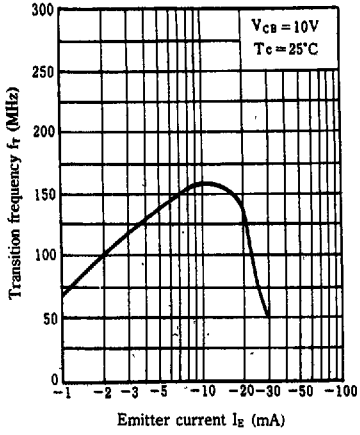
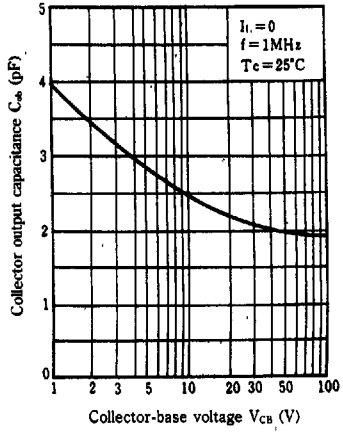
$V_{CE(sat)} - I_C$



$h_{FE} - I_C$



$f_T - I_E$



$C_{ob} - V_{CB}$