

SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

S1805

DESIGNED FOR USE IN AUDIO STAGE MEDIUM POWER AMPLIFIERS.
RECOMMENDED FOR OUTPUT AMPLIFIER STAGE IN CLASS B PUSH-PULL OPERATION.

HIGH RELIABILITY.

LOW FREQUENCY MEDIUM POWER AMPLIFIERS.
DRIVER STAGE AMPLIFIERS.

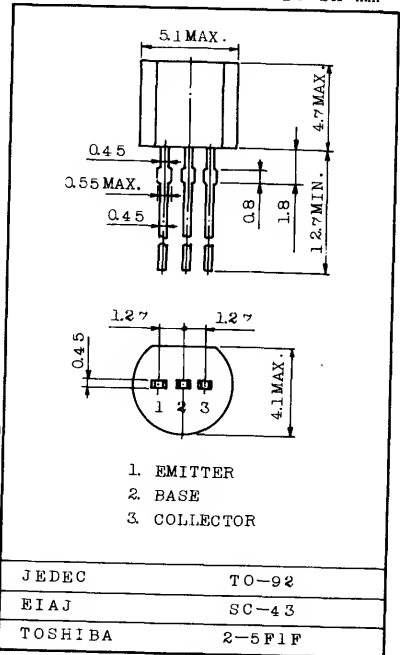
FEATURES:

- Excellent h_{FE} vs. Collector Current Characteristics, $h_{FE(2)}=23\text{Min. at } V_{CE}=1\text{V, } I_C=400\text{mA}$
- Complementary to S1806.

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	500	mA
Base Current	I_B	250	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature Range	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55-150	$^\circ\text{C}$

Unit in mm



Weight : 0.21g

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
DC Current Gain (1)	$h_{FE(1)}$	$V_{CE}=1\text{V, } I_C=50\text{mA}$	70	-	240	
DC Current Gain (2)	$h_{FE(2)}$	$V_{CE}=1\text{V, } I_C=400\text{mA}$	23	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100\text{mA, } I_B=5\text{mA}$	-	-	0.25	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100\text{mA, } I_B=5\text{mA}$	-	-	1.20	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=1\text{V, } I_C=50\text{mA}$	0.65	0.73	0.80	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=0.1\text{mA, } I_E=0$	40	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1\text{mA, } I_B=0$	30	-	-	V
Collector Cut-off Current	I_{CBO}	$V_{CB}=35\text{V, } I_E=0$	-	-	100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5\text{V, } I_C=0$	-	-	100	nA

