SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

S1808

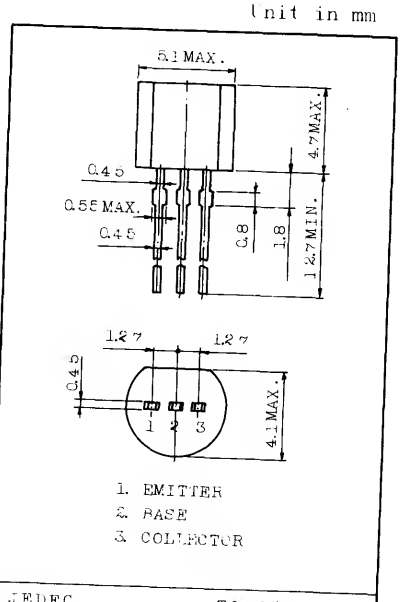
PRIMARILY INTENDED FOR USE IN DRIVER AND OUTPUT STAGE OF AUDIO AMPLIFIERS.

DESIGNED FOR COMPLEMENTARY USE WITH S1807.

FEATURES:

- Low Saturation Voltage : $V_{CE(sat)}$=-0.7V(Max.) at I_C=-500mA
- Complementaty to S1807

Unit in mm



JEDEC	TO-92
EIAJ	SC-43
TOSHIBA	2-5F1F

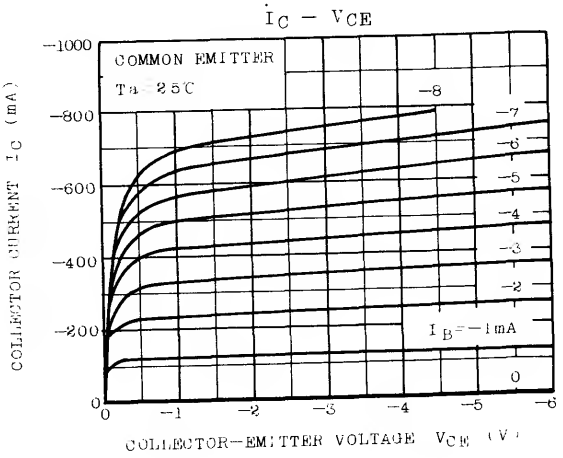
Weight : 0.21g

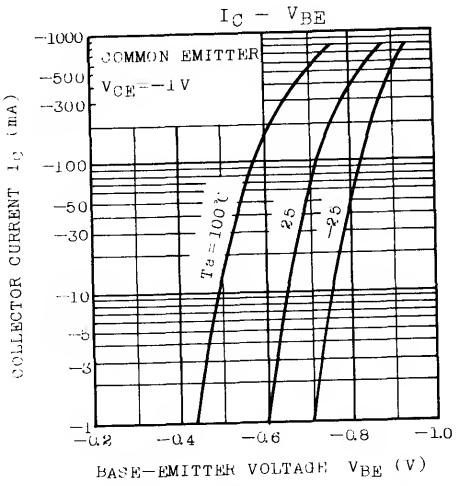
MAXIMUM RATINGS (Ta=25°C)

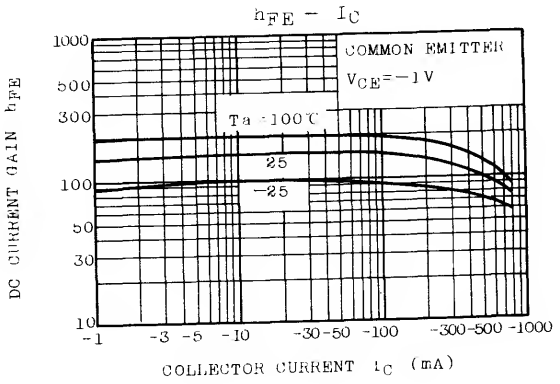
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-35	V
Collector-Emitter Voltage	V_{CEO}	-30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-800	mA
Base Current	I_B	-200	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

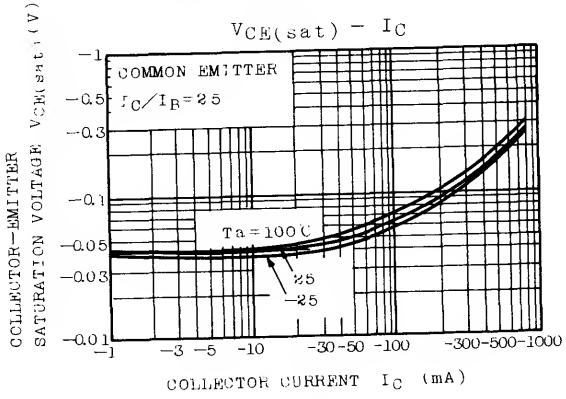
ELECTRICAL CHARACTERISTICS (Ta=25°C)

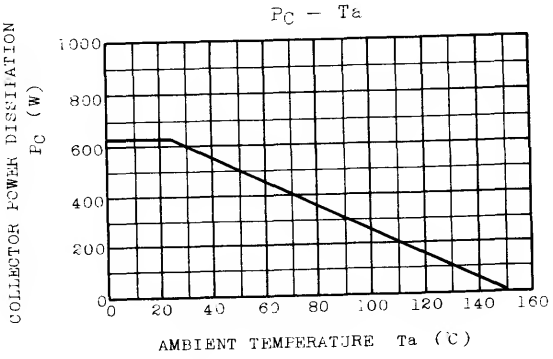
CHARACTERISTIC	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=-20V, I_E=0	-	-	-100	nA
Emitter Cut-off Current	I_{EBO}	V_{EB}=-5V, I_C=0	-	-	-100	nA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=-10mA, I_B=0	-30	-	-	V
DC Current Gain (1)	$h_{FE(1)}$	V_{CE}=-1V, I_C=-100mA	100	-	320	
DC Current Gain (2)	$h_{FE(2)}$	V_{CE}=-1V, I_C=-700mA	35	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-500mA, I_B=-20mA	-	-	-0.7	V
Base-Emitter Voltage	V_{BE}	V_{CE}=-1V, I_C=-10mA	-0.5	-	-0.8	V
Transition Frequency	f_T	V_{CE}=-5V, I_C=-10mA	-	120	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	19	-	pF


$I_C - V_{CE}$
COMMON EMITTER
Ta=25℃
I_B=−1mA
COLLECTOR CURRENT I_C (mA)
COLLECTOR−EMITTER VOLTAGE V_{CE} (V)


$I_C - V_{BE}$
COMMON EMITTER
V_{CE}=−1V
Ta=100℃
25
−25
COLLECTOR CURRENT I_C (mA)
BASE−EMITTER VOLTAGE V_{BE} (V)


$h_{FE} - I_C$
COMMON EMITTER
V_{CE}=−1V
Ta=100℃
25
−25
DC CURRENT GAIN h_{FE}
COLLECTOR CURRENT I_C (mA)


$V_{CE(sat)} - I_C$
COMMON EMITTER
I_C/I_B=25
Ta=100℃
25
−25
COLLECTOR−EMITTER SATURATION VOLTAGE $V_{CE(sat)}$ (V)
COLLECTOR CURRENT I_C (mA)


$P_C - Ta$
COLLECTOR POWER DISSIPATION P_C (W)
AMBIENT TEMPERATURE Ta (℃)