S1837

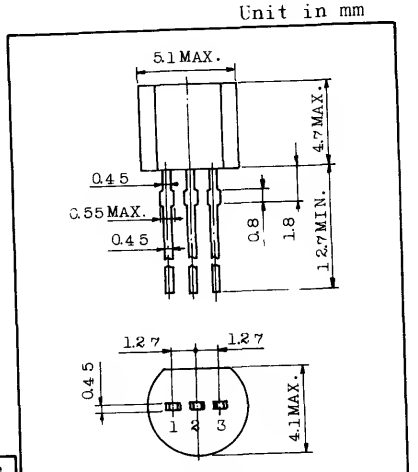
SILICON PNP TRIPLE DIFFUSED TYPE (PCT PROCESS)

FOR HIGH VOLTAGE AMPLIFIER APPLICATIONS.
PLASMA DISPLAY, NIXIE TUBE DRIVER APPLICATIONS.
COLOR TV VIDEO OUTPUT APPLICATIONS.

FEATURES:

- Complementary to S1836
- 300V Minimum $V_{(BR)CEO}$.
- Low Saturation Voltage : $V_{CE(sat)}$=-0.5V(Max.)
- Small Collector Output Capacitance.

Unit in mm



1. EMITTER
2. BASE
3. COLLECTOR

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

Weight : 0.21g

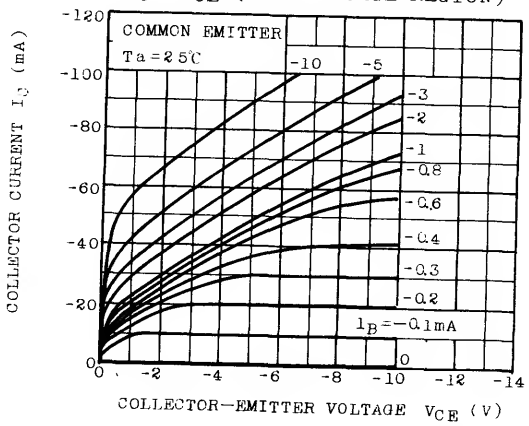
MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-300	V
Collector-Emitter Voltage	V_{CEO}	-300	V
Emitter-Base Voltage	V_{EBO}	-8	V
Collector Current	I_C	-100	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

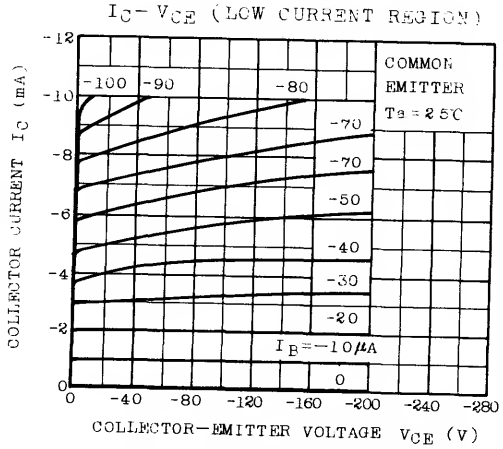
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=-300V, I_E=0	-	-	-0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=-8V, I_C=0	-	-	-0.1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=-1mA, I_B=0	-300	-	-	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=-0.1mA, I_E=0	-300	-	-	V
DC Current Gain	$h_{FE(1)}$	V_{CE}=-10V, I_C=-1mA	20	-	-	
	$h_{FE(2)}$	V_{CE}=-10V, I_C=-20mA	30	-	150	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-20mA, I_B=-2mA	-	-	-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=-20mA, I_B=-2mA	-	-	-1.2	V
Transition Frequency	f_T	V_{CE}=-10V, I_C=-20mA	40	60	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-20V, I_E=0, f=1MHz	-	6	8	pF

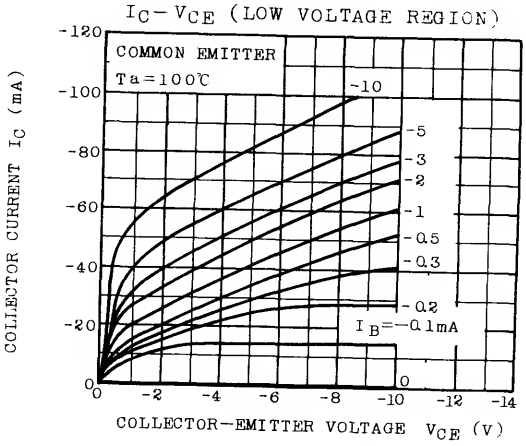
$I_C - V_{CE}$ (LOW VOLTAGE REGION)



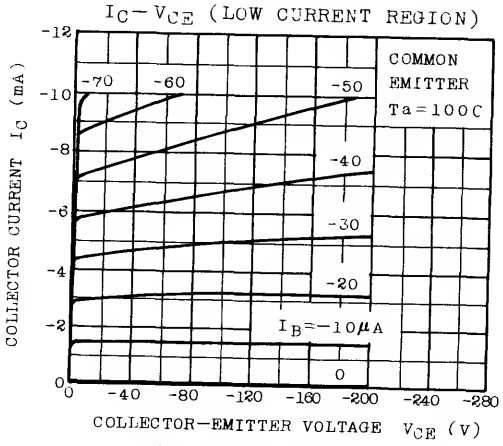
$I_C - V_{CE}$ (LOW CURRENT REGION)



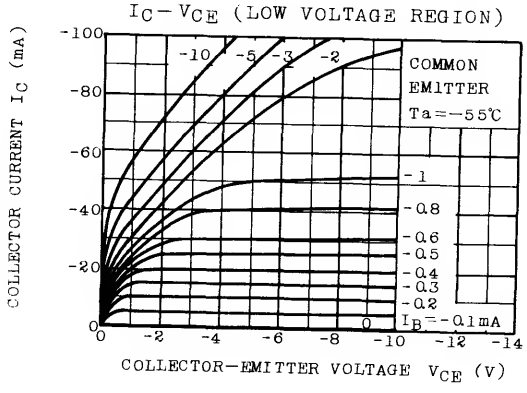
$I_C - V_{CE}$ (LOW VOLTAGE REGION)



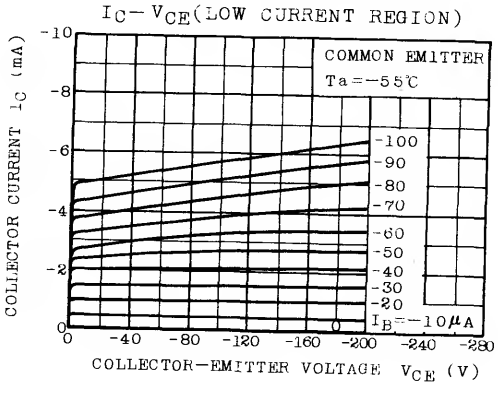
$I_C - V_{CE}$ (LOW CURRENT REGION)



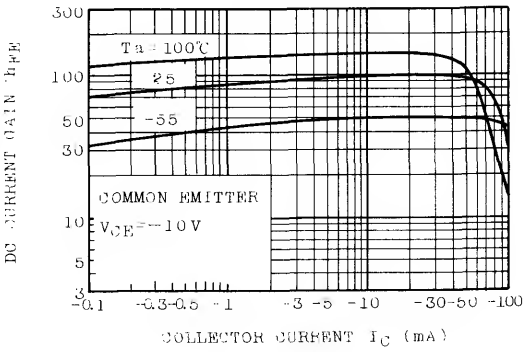
$I_C - V_{CE}$ (LOW VOLTAGE REGION)



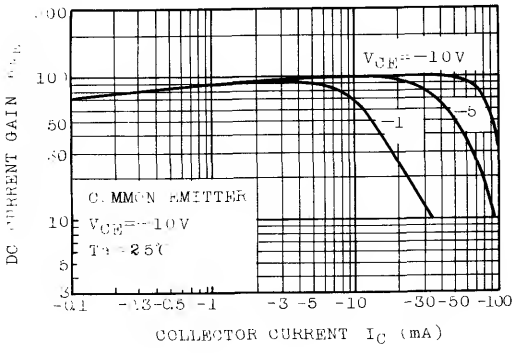
$I_C - V_{CE}$ (LOW CURRENT REGION)



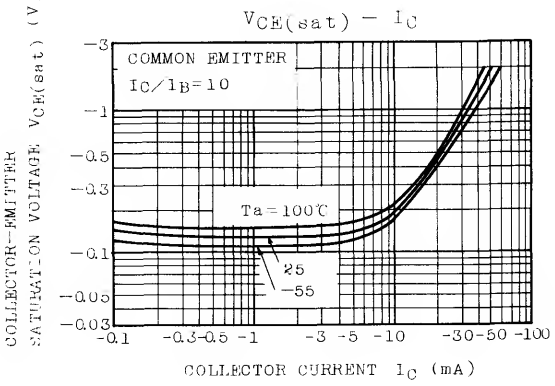
h_{FE} – I_C



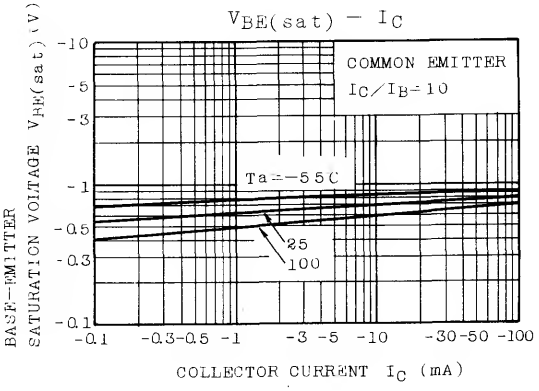
h_{FE} – I_C



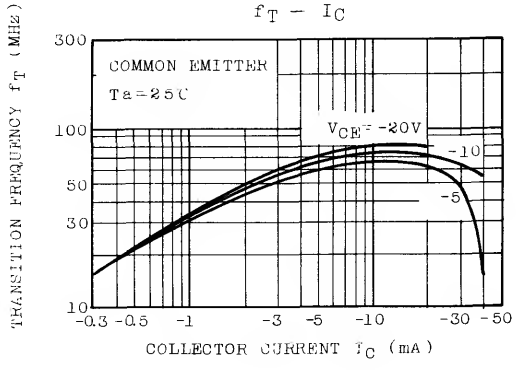
$V_{CE(sat)}$ – I_C



$V_{BE(sat)}$ – I_C



f_T – I_C



C_{ib}, C_{ob} – V_R