2SB754

SILICON PNP TRIPLE DIFFUSED TYPE (PCT PROCESS)

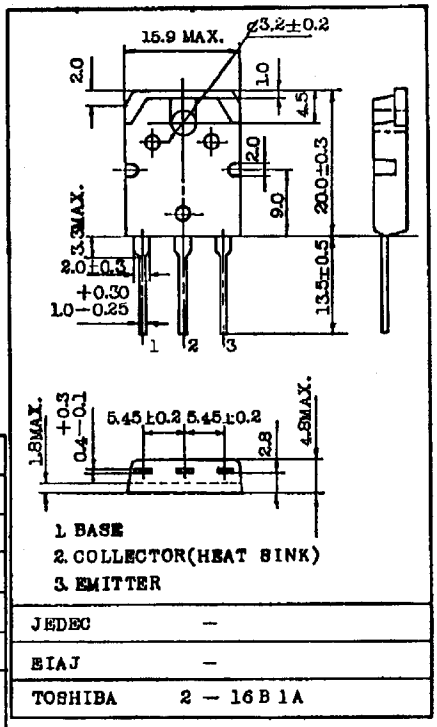
Unit in mm

HIGH CURRENT SWITCHING APPLICATIONS.

POWER AMPLIFIER APPLICATIONS.

FEATURES:

- High Collector Current : I_C=-7A
- Low Collector Saturation Voltage
  : $V_{CE(sat)}$=-0.4V (Max.) at I_C=-4A
- High Power Dissipation : P_C=60W at Tc=25°C
- Complementary to 2SD844.



JEDEC	—
EIAJ	—
TOSHIBA	2 — 16B1A

Weight : 4.6g

MAXIMUM RATINGS (Ta=25°C)

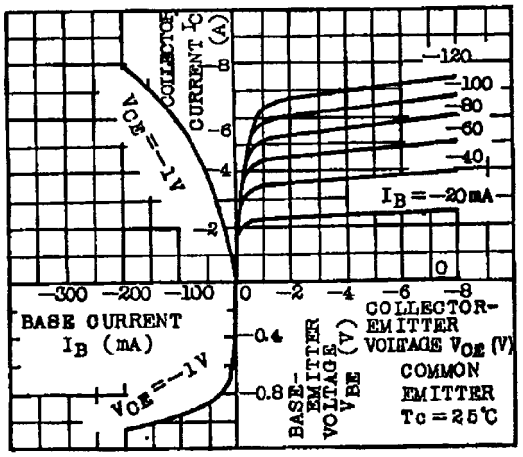
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	-50	V
Collector-Emitter Voltage		V_{CEO}	-50	V
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current		I_C	-7	A
Emitter Current		I_E	7	A
Collector Power Dissipation	Ta=25°C	P_C	2.5	W
	Tc=25°C		60	
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55∿150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

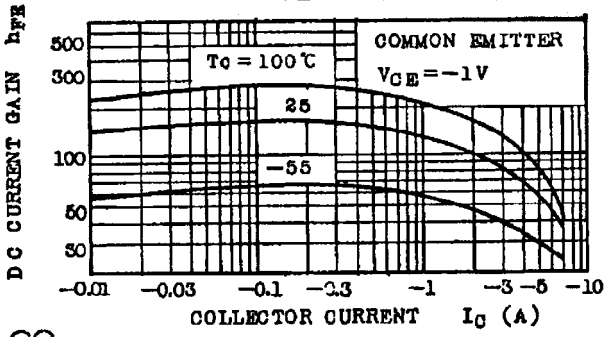
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=-50V, I_E=0	-	-	-10	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=-5V, I_C=0	-	-	-10	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=-50mA, I_B=0	-50	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=-10mA, I_C=0	-5	-	-	V
DC Current Gain	$h_{FE(1)}$ (Note)	V_{CE}=-1V, I_C=-1A	70	-	240	
	$h_{FE(2)}$	V_{CE}=-1V, I_C=-4A	30	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-4A, I_B=-0.4A	-	-0.2	-0.4	V
Base-Emitter Voltage	V_{BE}	V_{CE}=-1V, I_C=-4A	-	-0.9	-1.2	V
Transition Frequency	f_T	V_{CE}=-5V, I_C=-1A	-	10	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	300	-	pF

Note : $h_{FE(1)}$ Classification O : 70∿140 Y : 120∿240

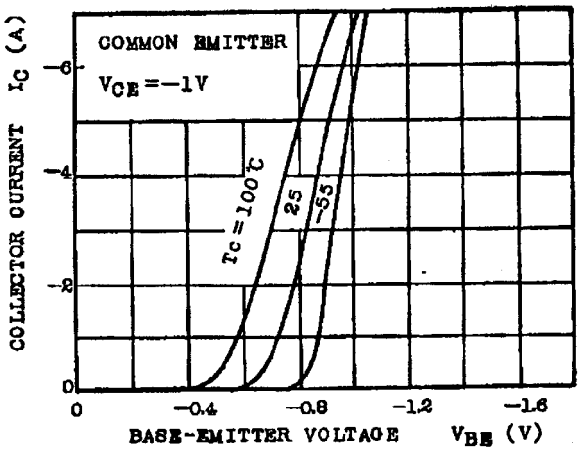
STATIC CHARACTERISTICS



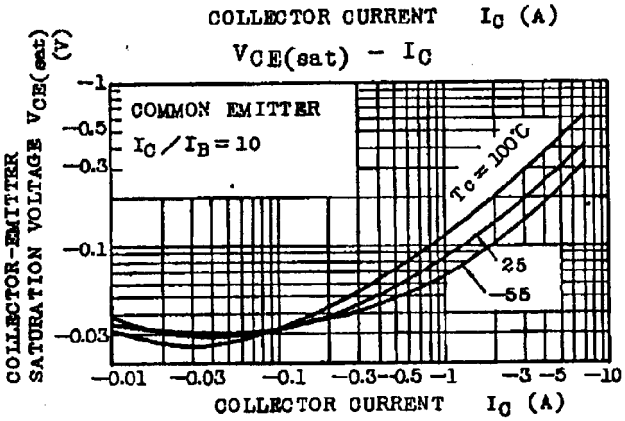
h_{FE} − I_C



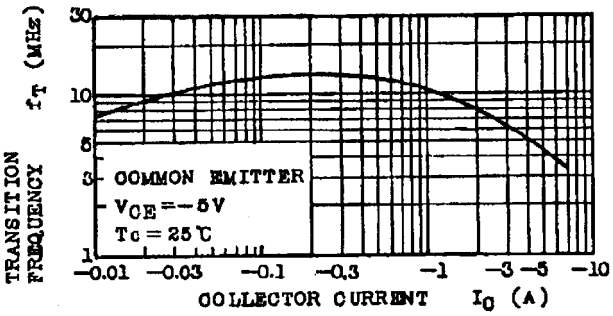
I_C − V_{BE}



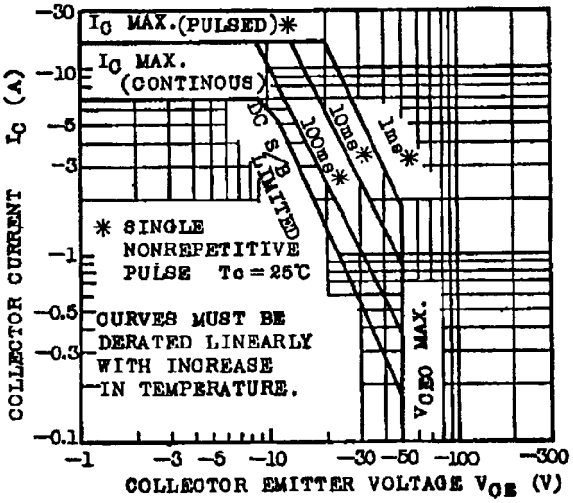
$V_{CE(sat)}$ − I_C



f_T − I_C



SAFE OPERATING AREA



P_C − Ta