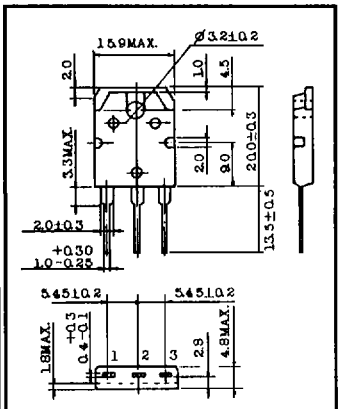
SILICON PNP TRIPLE DIFFUSED TYPE (PCT PROCESS)

2SB754

HIGH CURRENT SWITCHING APPLICATIONS.
POWER AMPLIFIER APPLICATIONS.

- 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.

Unit in mm



1. BASE
2. COLLECTOR (HEAT SINK)
3. EMITTER

JEDEC	—
EIAJ	—
TOSHIBA	2-16B1A

Weight : 4.6g

MAXIMUM RATINGS (Ta = 25°C)

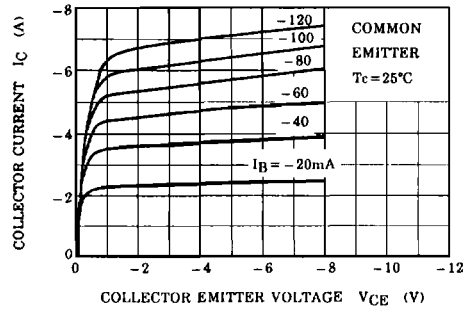
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	−50	V
Collector-Emitter Voltage		V_{CEO}	−50	V
Emitter-Base Voltage		V_{EBO}	−5	V
Collector Current		I_C	−7	A
Emitter Current		I_E	7	A
Collector Power Dissipation	Ta = 25°C	P_C	2.5	W
	Tc = 25°C		60	
Junction Temperature		T_j	150	°C
Storage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

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

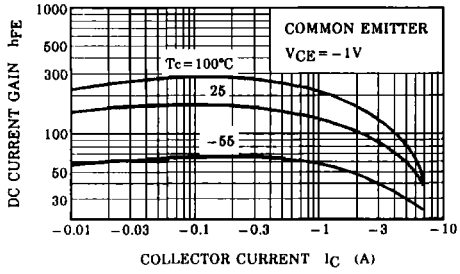
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -50V$, $I_E = 0$	—	—	−10	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5V$, $I_C = 0$	—	—	−10	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -50mA$, $I_B = 0$	−50	—	—	V
Emitter-Base Breakdown 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

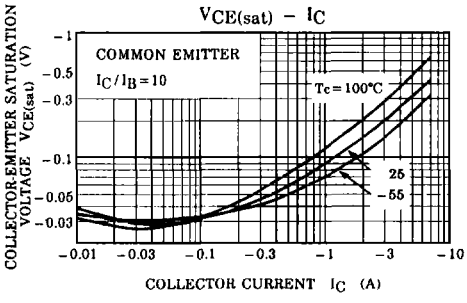
$I_C - V_{CE}$



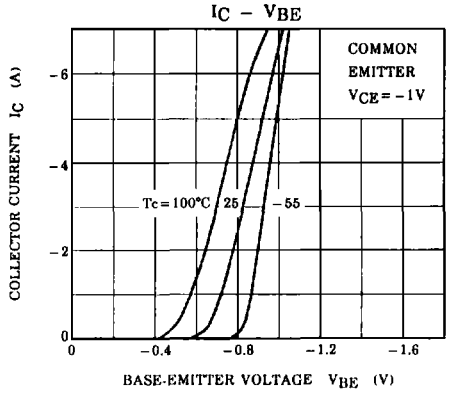
$h_{FE} - I_C$



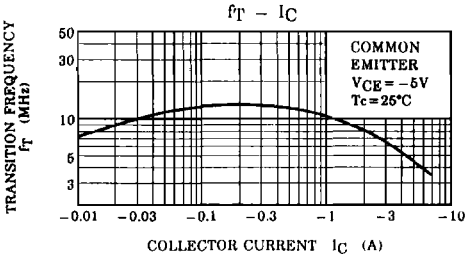
$V_{CE(sat)} - I_C$



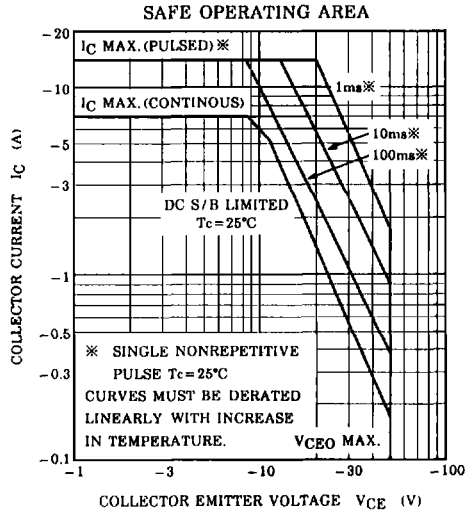
$I_C - V_{BE}$



$f_T - I_C$



SAFE OPERATING AREA



$P_C - Ta$