SILICON PNP EPITAXIAL TYPE (DARLINGTON POWER)

2SB1034

MICRO MOTOR DRIVE, HAMMER DRIVE APPLICATIONS.

SWITCHING APPLICATIONS.

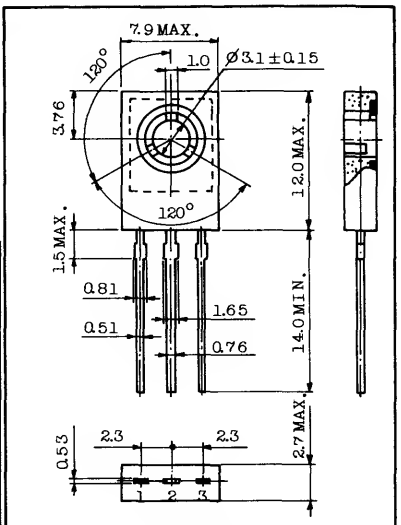
POWER AMPLIFIER APPLICATIONS.

INDUSTRIAL APPLICATIONS

FEATURES:

- High DC Current Gain
  : h_{FE}=2000(Min.) (V_{CE}=-2V, I_C=-1A)
- Low Saturation Voltage
  : $V_{CE(sat)}$=-1.5V(Max.) (I_C=-1A, I_B=-1mA)

Unit in mm



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

JEDEC	TO-126
EIAJ	—
TOSHIBA	2-8F1A

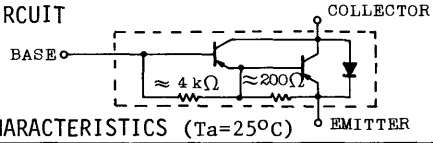
Mounting Kit No. AC46C

Weight : 0.72g

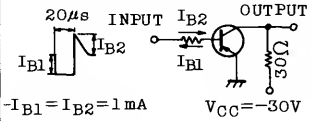
MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-80	V
Collector-Emitter Voltage	V_{CEO}	-80	V
Emitter-Base Voltage	V_{EBO}	-8	V
Collector Current	I_C	-2	A
Base Current	I_B	-0.5	A
Collector Power Dissipation (Tc=25°C)	P_C	15	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C

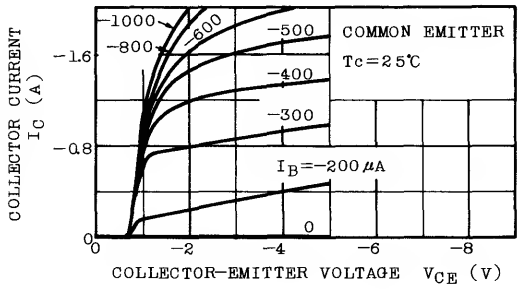
EQUIVALENT CIRCUIT



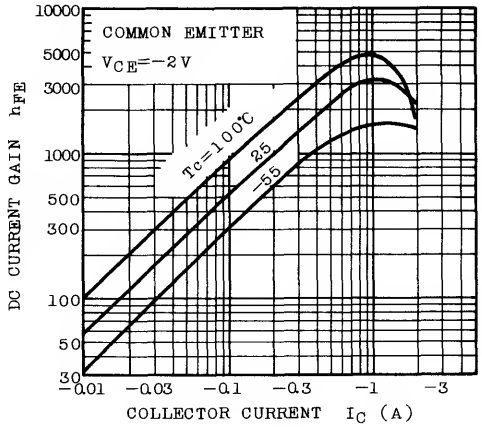
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB}=-80V, I_E=0	-	-	-10	μA
Emitter Cut-off Current		I_{EBO}	V_{EB}=-8V, I_C=0	-	-	-4	mA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	I_C=-10mA, I_B=0	-80	-	-	V
DC Current Gain		h_{FE}	V_{CE}=-2V, I_C=-1A	2000	-	-	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	I_C=-1A, I_B=-1mA	-	-	-1.5	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	I_C=-1A, I_B=-1mA	-	-	-2.0	V
Transition Frequency		f_T	V_{CE}=-2V, I_C=-0.5A	-	50	-	MHz
Collector Output Capacitance		C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	30	-	pF
Switching Time	Turn-on Time	t_{on}		-	0.4	-	μs
	Storage Time	t_{stg}		-	2.0	-	
	Fall Time	t_f		-	0.4	-	

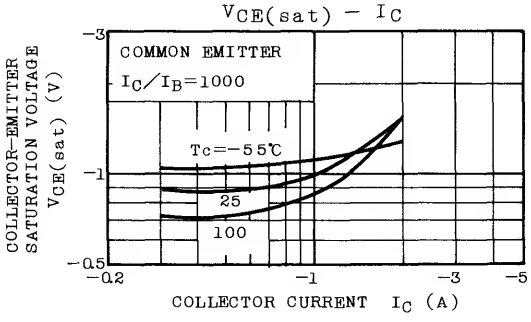
I_C – V_{CE}



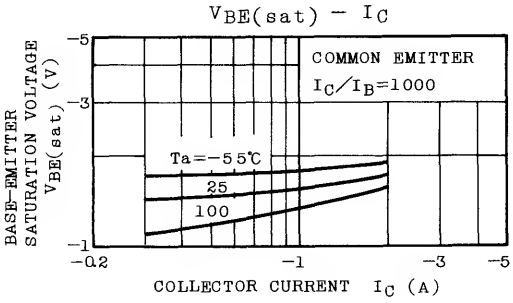
h_{FE} – I_C



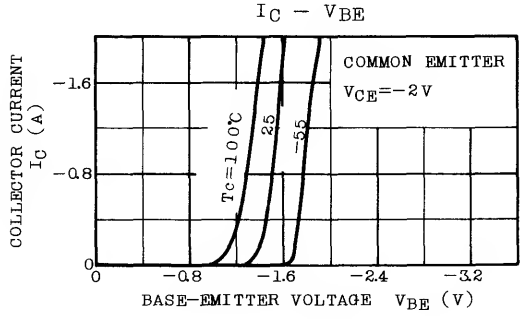
$V_{CE(sat)}$ – I_C



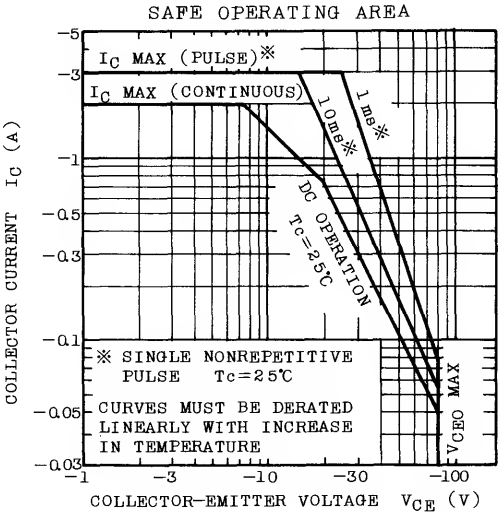
$V_{BE(sat)}$ – I_C



I_C – V_{BE}



SAFE OPERATING AREA



P_C – Ta