SILICON NPN EPITAXIAL TYPE
(DARLINGTON POWER)

2SD549

PULSE MOTOR DRIVE, HAMMER DRIVE APPLICATIONS.

SWITCHING APPLICATIONS.

POWER AMPLIFIER APPLICATIONS.

FEATURES:

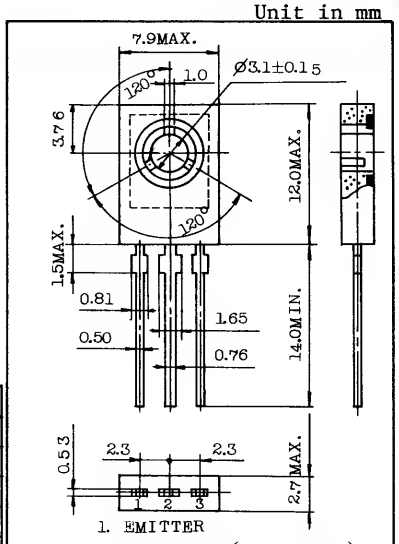
- High DC Current Gain

  : h_{FE}=4000(Min.) (V_{CE}=2V, I_C=150mA)

- Low Saturation Voltage

  : $V_{CE(sat)}$=1.5V(Max.) (I_C=1A, I_B=1mA)

Unit in mm



JEDEC	TO – 126
EIAJ	–
TOSHIBA	2 – 8F1A

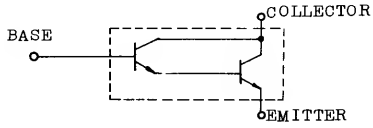
Mounting Kit No. AC46C

Weight : 0.72g

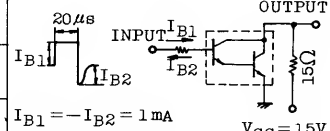
MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	10	V
Continuous Collector Current	I_C	1.5	A
Collector Power Dissipation (Ta=25°C)	P_C	1.0	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55∿150	°C

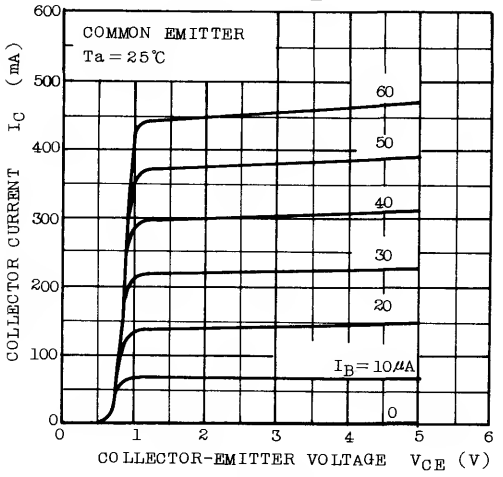
EQUIVALENT CIRCUIT



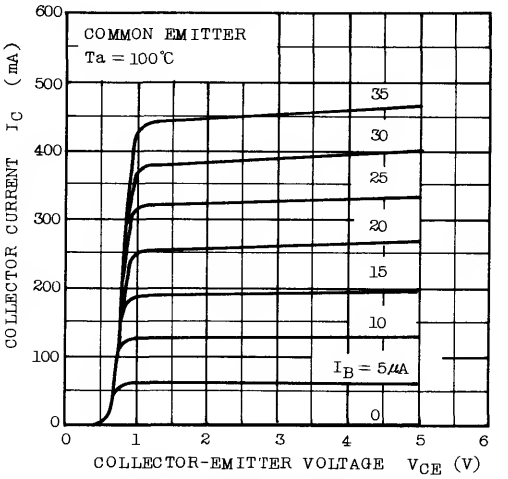
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB}=30V, I_E=0	–	–	10	μA
Emitter Cut-off Current		I_{EBO}	V_{EB}=10V, I_C=0	–	–	10	μA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	I_C=10mA, I_B=0	30	–	–	V
DC Current Gain		h_{FE}	V_{CE}=2V, I_C=150mA	4000	–	–	
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	–	–	2.2	V
Switching Time	Turn-on Time	t_{on}		–	0.18	–	μs
	Storage Time	t_{stg}		–	0.6	–	
	Fall Time	t_f		–	0.3	–	

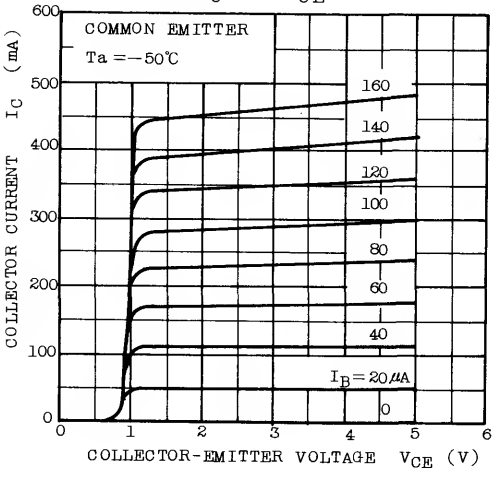
I_C – V_{CE}



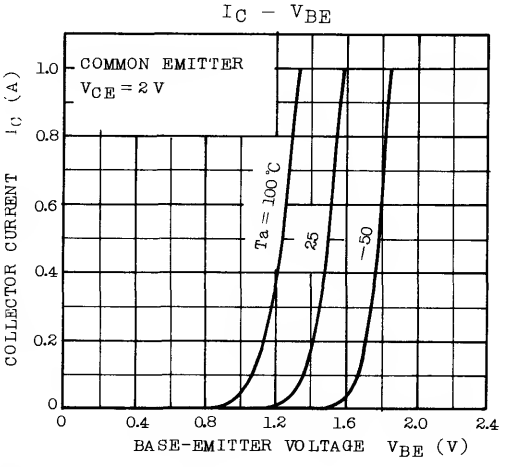
I_C – V_{CE}



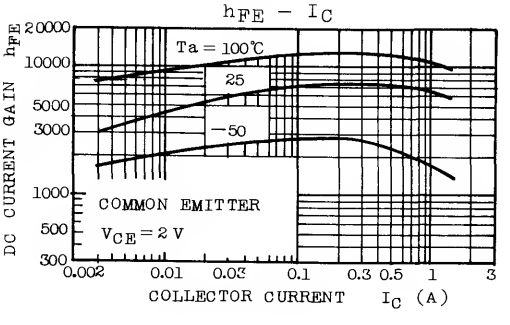
I_C – V_{CE}



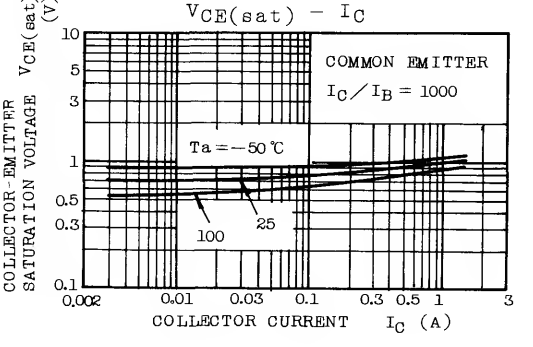
I_C – V_{BE}



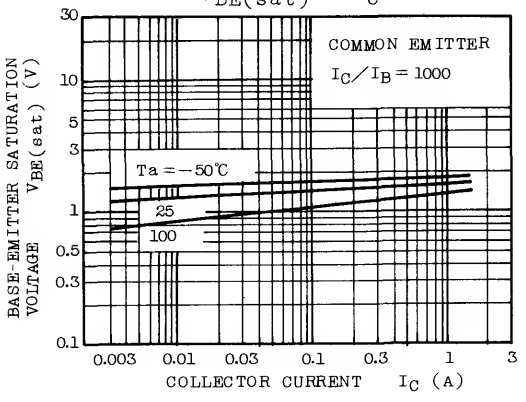
h_{FE} – I_C



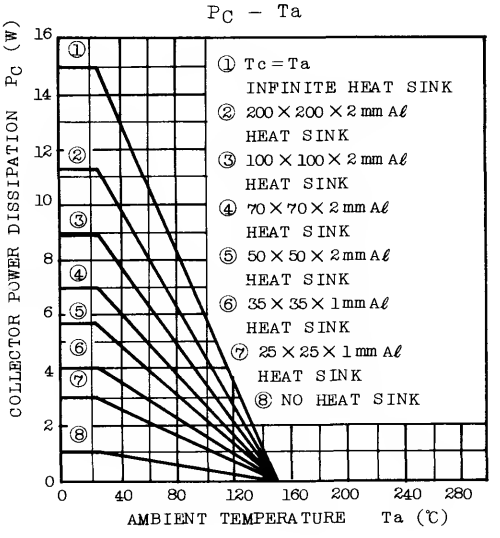
$V_{CE(sat)}$ – I_C



$V_{BE(sat)}$ – I_C



P_C – Ta



SAFE OPERATING AREA