2SB673
2SB674
2SB675

SILICON PNP EPITAXIAL TYPE (PCT PROCESS)
(DARLINGTON POWER)

HIGH POWER SWITCHING APPLICATIONS.

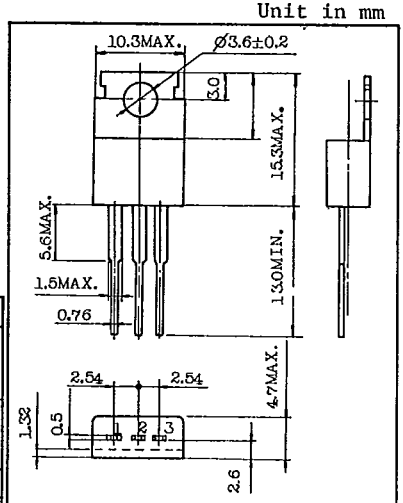
HAMMER DRIVE, PULSE MOTOR DRIVE APPLICATIONS.

INDUSTRIAL APPLICATIONS

FEATURES:

- High DC Current Gain : h_{FE}=2000(Min.)(V_{CE}=-3V, I_C=-3A)
- Low Saturation Voltage : $V_{CE(sat)}$=-1.5V(Max.)(I_C=-3A)
- Complementary to 2SD633, 2SD634 and 2SD635.

Unit in mm



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

JEDEC	TO — 220 AB
EIAJ	SC — 46
TOSHIBA	2 — 10 A 1A

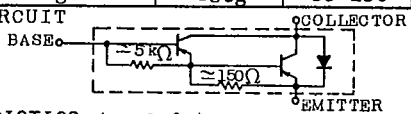
Mounting Kit No. AC75

Weight : 1.9g

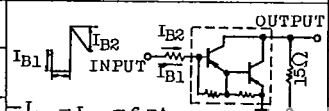
MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	2SB673	V_{CBO}	-100	V
	2SB674		-80	
	2SB675		-60	
Collector-Emitter Voltage	2SB673	V_{CEO}	-100	V
	2SB674		-80	
	2SB675		-60	
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current		I_C	-7	A
Base Current		I_B	-0.2	A
Collector Power Dissipation (Tc=25°C)		P_C	40	W
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55∿150	°C

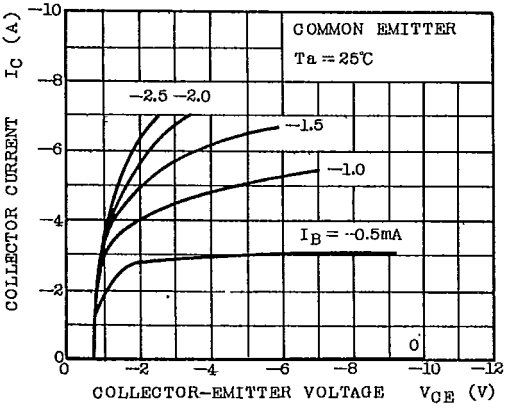
EQUIVALENT CIRCUIT



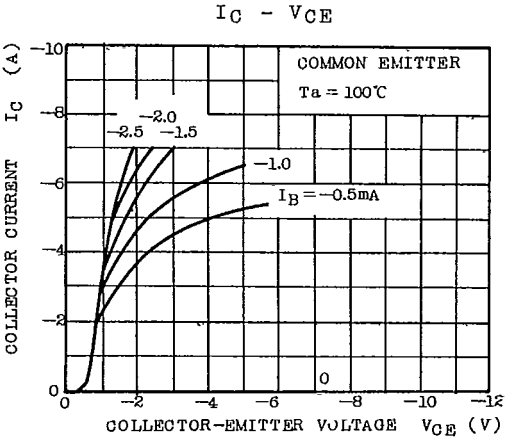
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	2SB673	I_{CBO}	V_{CB}=-100V, I_E=0	-	-	-100	μA
	2SB674		V_{CB}=-80V, I_E=0	-	-	-100	
	2SB675		V_{CB}=-60V, I_E=0	-	-	-100	
Emitter Cut-off Current		I_{EBO}	V_{EB}=-5V, I_C=0	-	-	-4.0	mA
Collector-Emitter Breakdown Voltage	2SB673	$V_{(BR)CEO}$	I_C=-50mA, I_B=0	-100	-	-	V
	2SB674			-80	-	-	
	2SB675			-60	-	-	
DC Current Gain		$h_{FE(1)}$	V_{CE}=-3V, I_C=-3A	2000	-	15000	
		$h_{FE(2)}$	V_{CE}=-3V, I_C=-7A	1000	-	-	
Collector-Emitter Saturation Voltage		$V_{CE(sat)(1)}$	I_C=-3A, I_B=-6mA	-	-0.95	-1.5	V
		$V_{CE(sat)(2)}$	I_C=-7A, I_B=-14mA	-	-1.3	-2.0	
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	I_C=-3A, I_B=-6mA	-	-1.55	-2.5	V
Switching Time	Turn-on Time	t_{on}		-	0.8	-	μs
	Storage Time	t_{stg}		-	2.0	-	
	Fall Time	t_f		-	0.5	-	

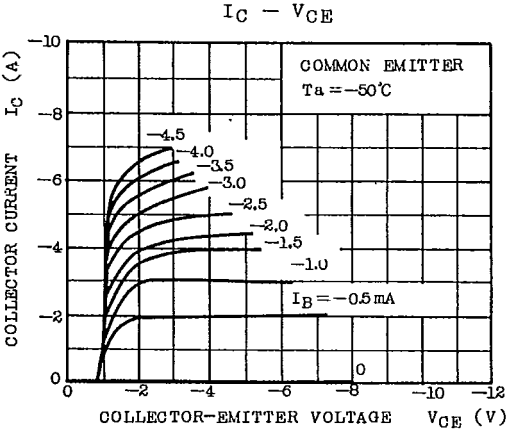
$I_C - V_{CE}$



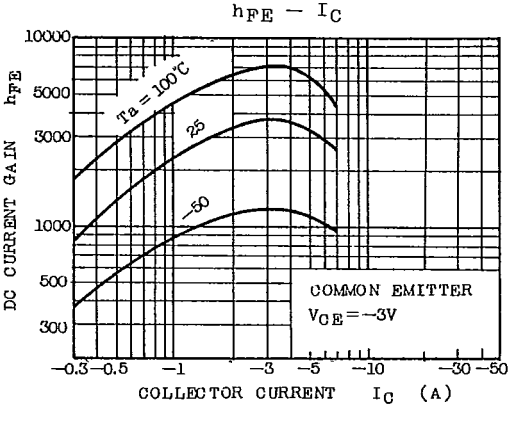
$I_C - V_{CE}$



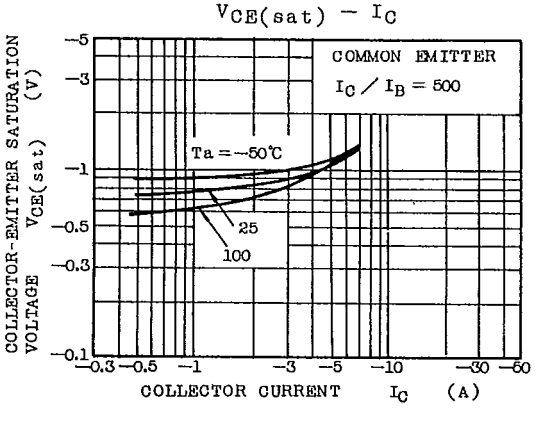
$I_C - V_{CE}$



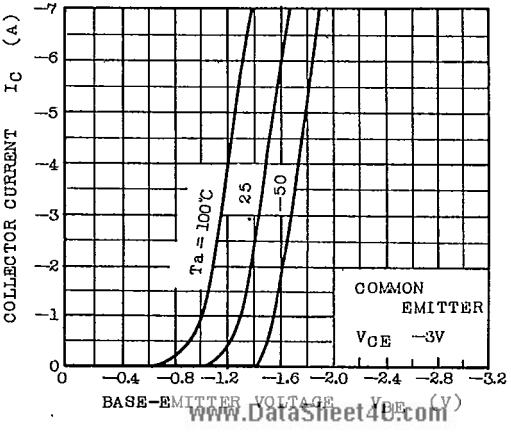
$h_{FE} - I_C$



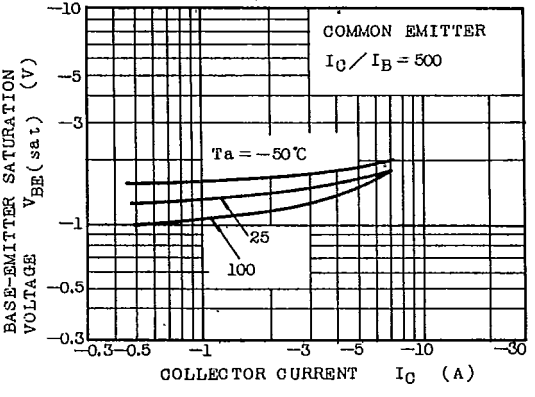
$V_{CE(sat)} - I_C$



$I_C - V_{BE}$



$V_{BE(sat)} - I_C$



SAFE OPERATING AREA