

PULSE MOTOR DRIVE, HAMMER DRIVE APPLICATIONS.  
SWITCHING APPLICATIONS.  
POWER AMPLIFIER APPLICATIONS.

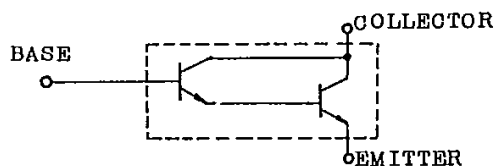
**FEATURES:**

- High DC Current Gain  
:  $h_{FE}=4000(\text{Min.})$  ( $V_{CE}=2V, I_C=150\text{mA}$ )
- Low Saturation Voltage  
:  $V_{CE(\text{sat})}=1.5V(\text{Max.})$  ( $I_C=1A, I_B=1\text{mA}$ )

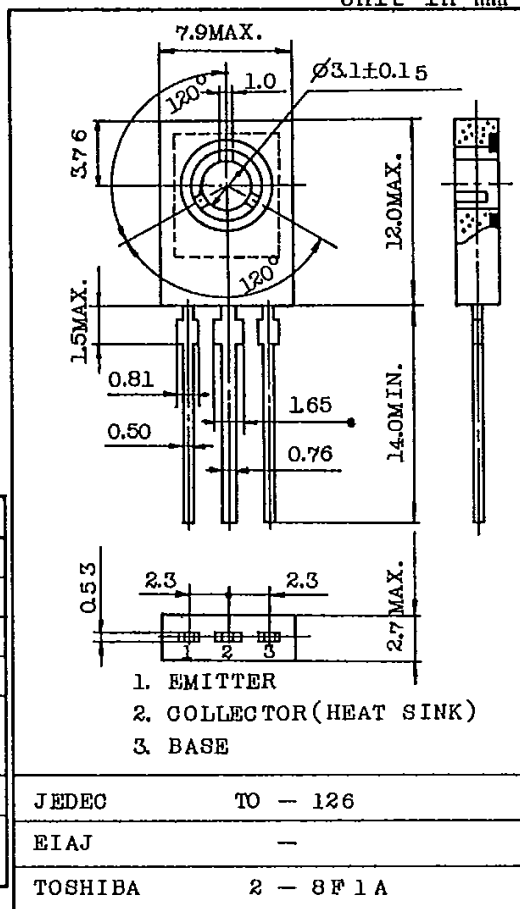
**MAXIMUM RATINGS** ( $T_a=25^\circ\text{C}$ )

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 ( $T_a=25^\circ\text{C}$ )	$P_C$	1.0	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{\text{stg}}$	-55~150	$^\circ\text{C}$

**EQUIVALENT CIRCUIT**



Unit in mm



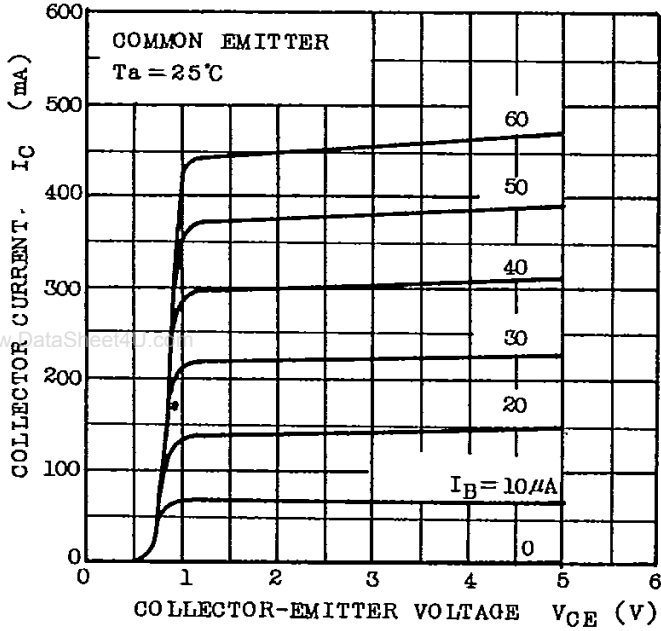
Mounting Kit No. AC46C  
Weight : 0.72g

**ELECTRICAL CHARACTERISTICS** ( $T_a=25^\circ\text{C}$ )

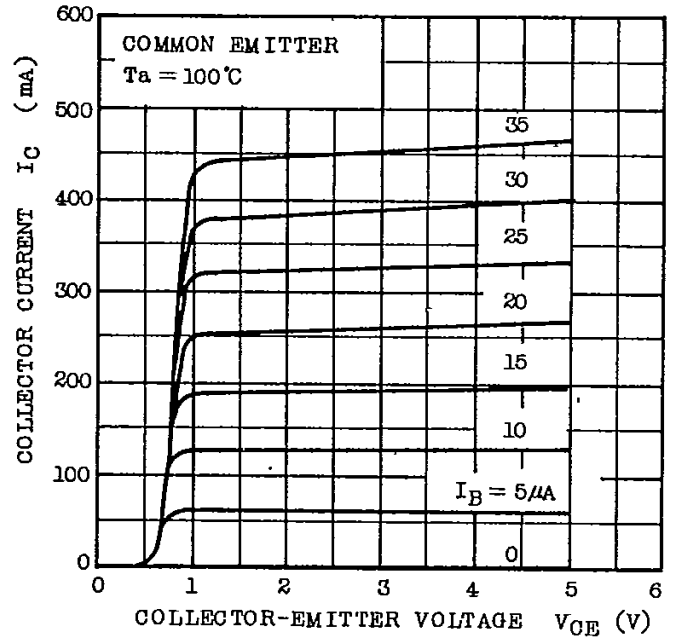
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=30V, I_E=0$	-	-	10	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=10V, I_C=0$	-	-	10	$\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	30	-	-	V
DC Current Gain	$h_{FE}$	$V_{CE}=2V, I_C=150\text{mA}$	4000	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(\text{sat})}$	$I_C=1A, I_B=1\text{mA}$	-	-	1.5	V
Base-Emitter Saturation Voltage	$V_{BE(\text{sat})}$	$I_C=1A, I_B=1\text{mA}$	-	-	2.2	V
Switching Time	Turn-on Time	$t_{\text{on}}$	-	0.18	-	$\mu\text{s}$
	Storage Time	$t_{\text{stg}}$	-	0.6	-	
	Fall Time	$t_f$	-	0.3	-	

$I_{B1} = -I_{B2} = 1\text{mA}$   
 DUTY CYCLE  $\leq 1\%$   
 $V_{CC} = 15V$

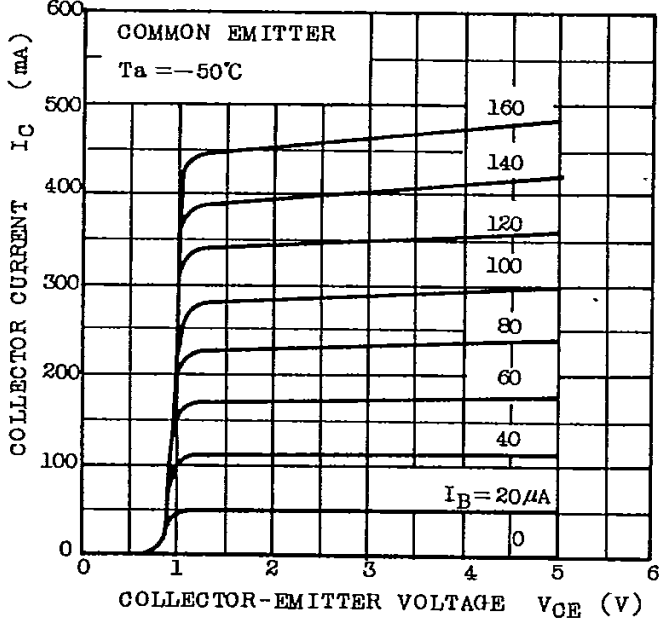
$I_C - V_{CE}$



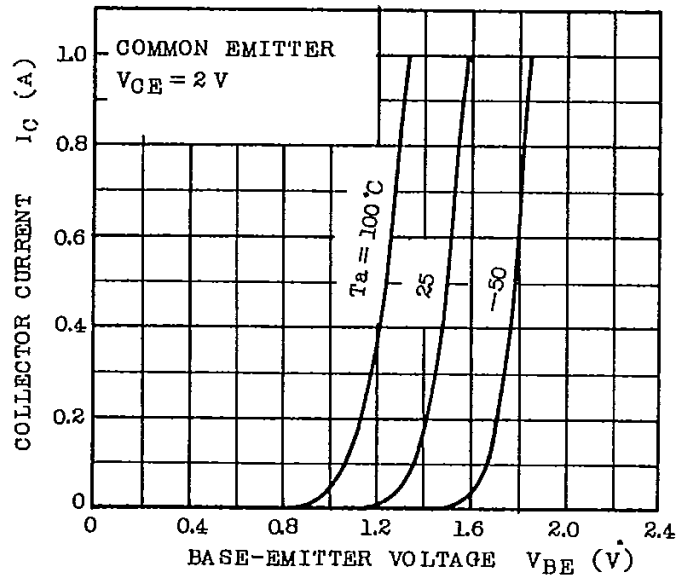
$I_C - V_{CE}$



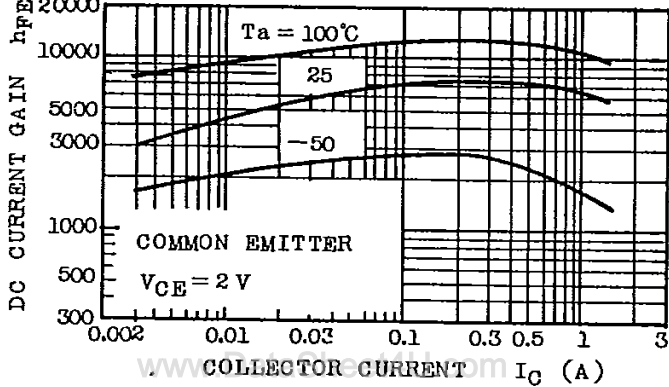
$I_C - V_{CE}$



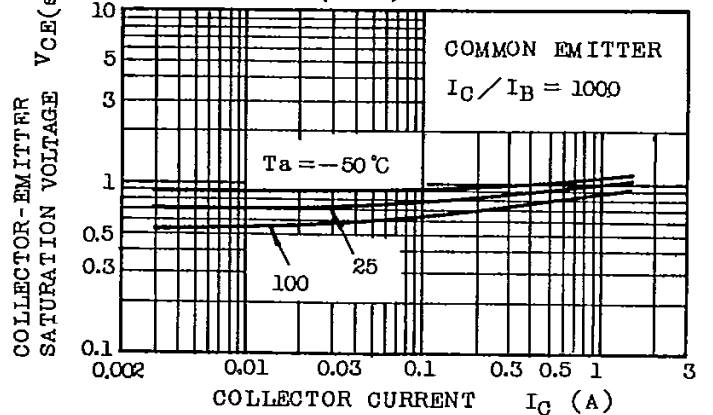
$I_C - V_{BE}$

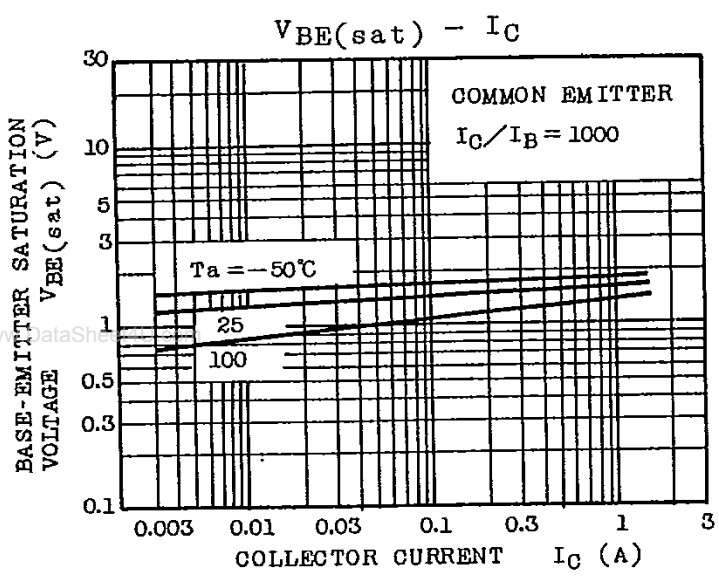


$h_{FE} - I_C$



$V_{CE(sat)} - I_C$





### SAFE OPERATING AREA

