

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07852 07-33-09

SILICON NPN TRIPLE DIFFUSED TYPE (PCT PROCESS)

2SD1052A

AUDIO FREQUENCY POWER AMPLIFIER APPLICATIONS.

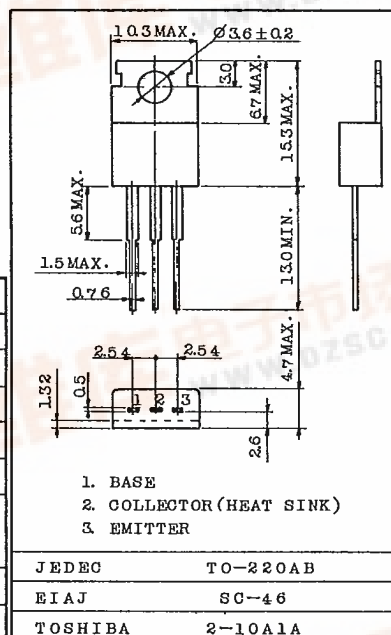
Unit in mm

FEATURES :

- High DC Current Gain of 400 to 1200 at $V_{CE}=5V, I_C=0.5A$
- Low $V_{CE(sat)}$ of 1.0V (MAX.) at $I_C=1A, I_B=0.02A$
- Collector Power Dissipation of 30W at $T_c=25^\circ C$

MAXIMUM RATINGS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector Current	I_C	3	A
Base Current	I_B	0.5	A
Collector Power Dissipation	P_C	$T_a=25^\circ C$	1.5
		$T_c=25^\circ C$	30
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$



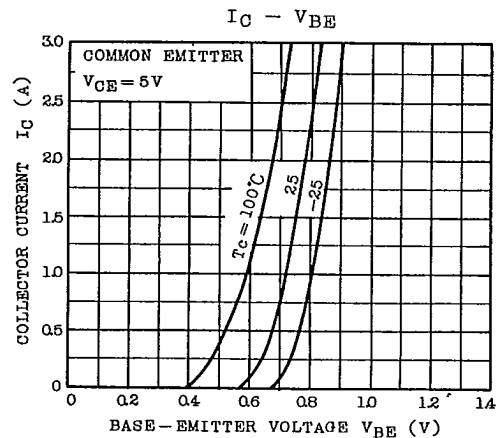
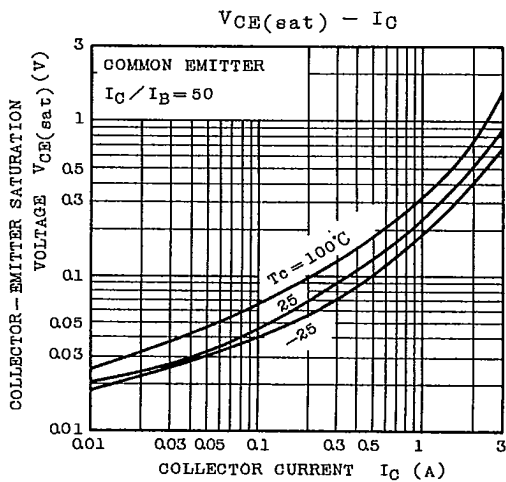
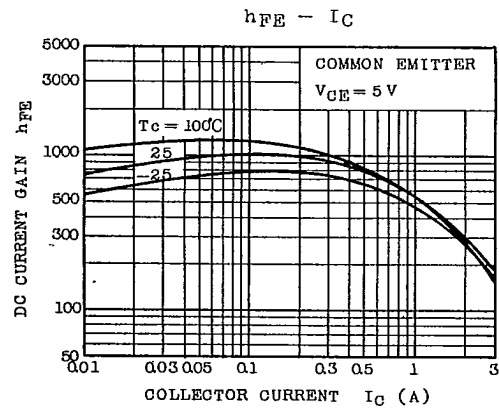
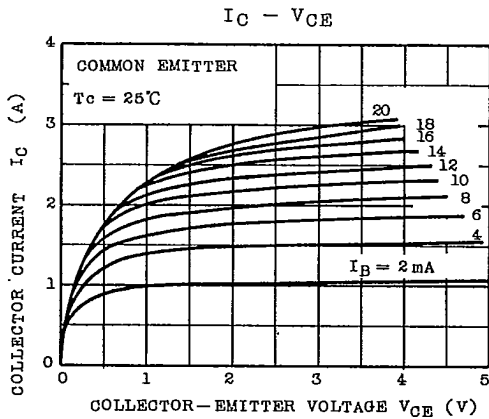
Mounting kit No.AC75

Weight : 1.9g

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=50V, I_E=0$	-	-	100	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=7V, I_C=0$	-	-	100	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=50mA, I_B=0$	50	-	-	V
DC Current Gain	h_{FE}	$V_{CE}=5V, I_C=0.5A$	400	-	1200	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1A, I_B=0.02A$	-	0.25	1.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=5V, I_C=0.5A$	-	0.7	1.0	V
Transition Frequency	f_T	$V_{CE}=5V, I_C=0.5A$	-	5.0	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	-	70	-	pF
Switching Time	Turn-on Time	T_{on}	-	2.0	-	μs
	Storage Time	T_{stg}	-	5.0	-	μs
	Fall Time	T_f	-	3.0	-	μs

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TOSHIBA CORPORATION

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