

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07852 07-33-09

SILICON NPN TRIPLE DIFFUSED TYPE (PCT PROCESS)

2SD1052A

AUDIO FREQUENCY POWER AMPLIFIER APPLICATIONS.

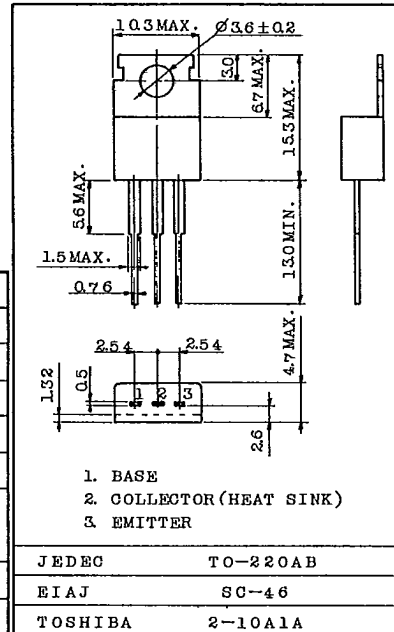
Unit in mm

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_{CB0}	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	$T_a=25^\circ C$	P_C	1.5	W
	$T_c=25^\circ C$		30	
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	-55~150	$^\circ C$



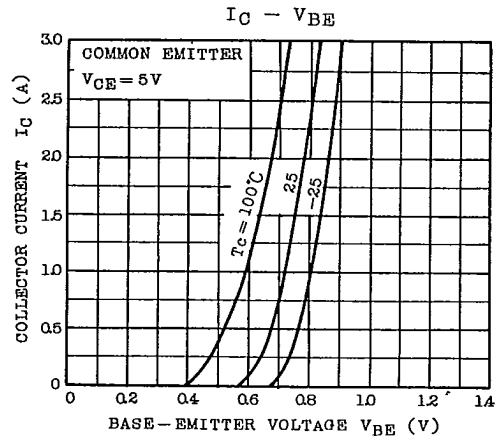
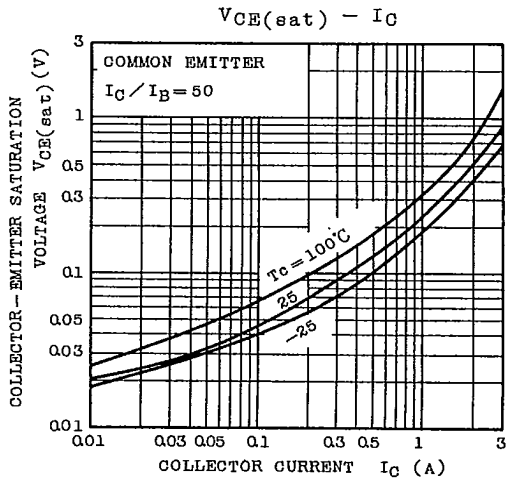
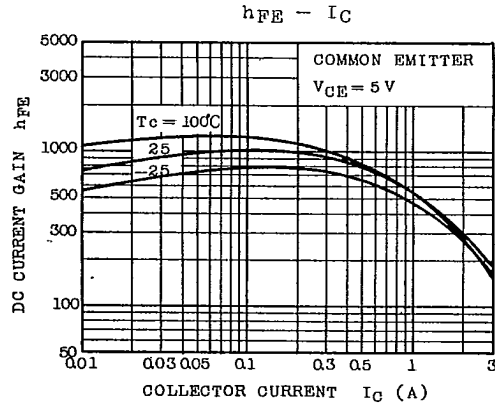
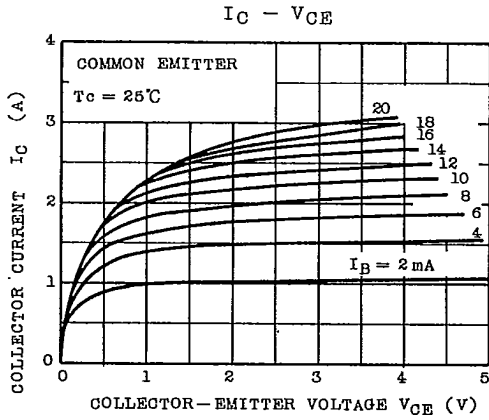
Mounting kit No.AC75
Weight : 1.9g

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}	$V_{CB}=10V, I_B=0, f=1MHz$	-	70	-	pF
Switching Time	Turn-on Time	T_{on}		-	2.0	-	μs
	Storage Time	T_{stg}		-	5.0	-	
	Fall Time	T_f		-	3.0	-	

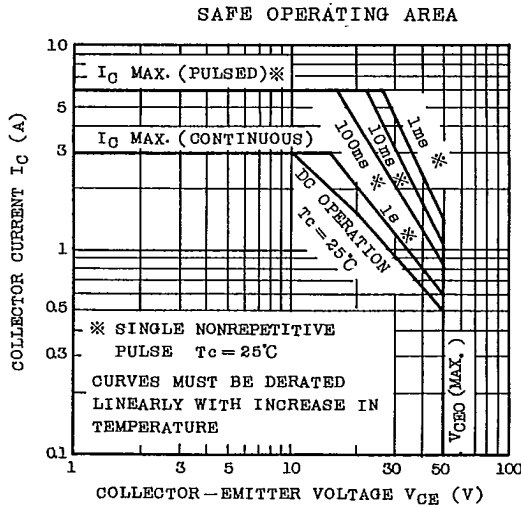
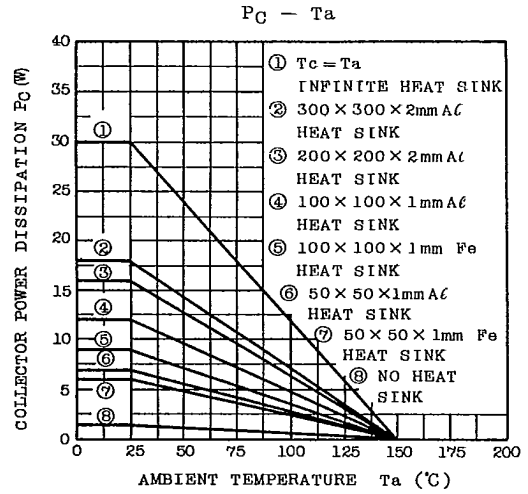
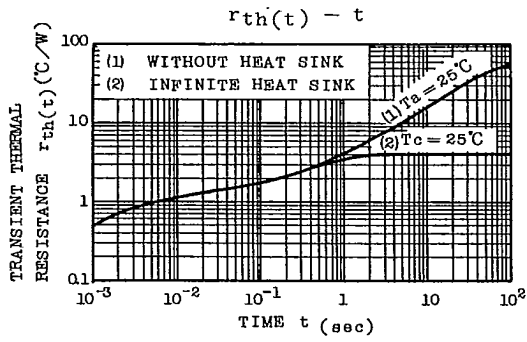
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