

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07440 DT-33-07

SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

**2SC1173**

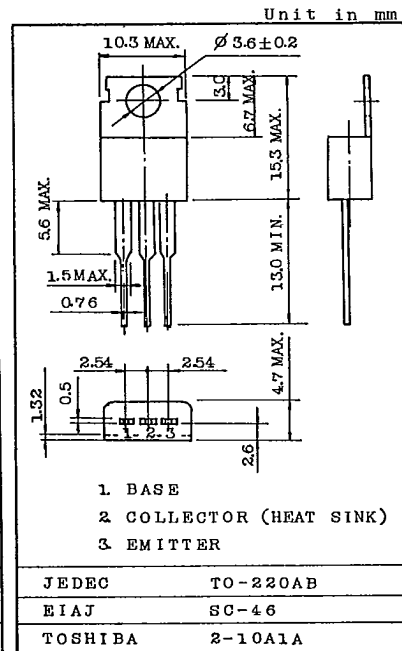
POWER AMPLIFIER APPLICATIONS.  
CAR RADIO, CAR STEREO OUTPUT STAGE AMPLIFIER  
APPLICATIONS.

## FEATURES:

- Good Linearity of  $h_{FE}$ .
- Complementary to 2SA473 and 5 Watts Output Applications.

## MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	30	V
Collector-Emitter Voltage	$V_{CEO}$	30	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	3	A
Emitter Current	$I_E$	-3	A
Collector Power Dissipation ( $T_c=25^\circ\text{C}$ )	$P_C$	10	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 ~ 150	$^\circ\text{C}$



Mounting kit No. AC75  
Weight : 1.9g

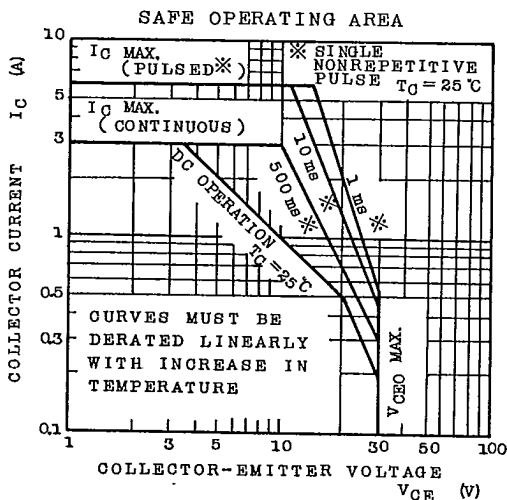
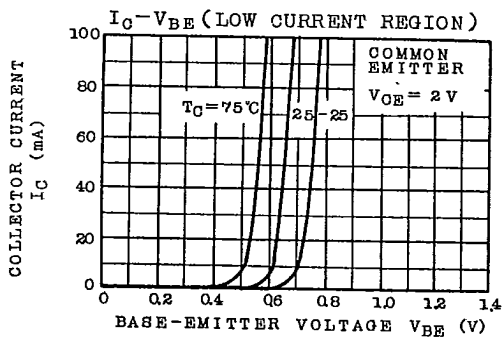
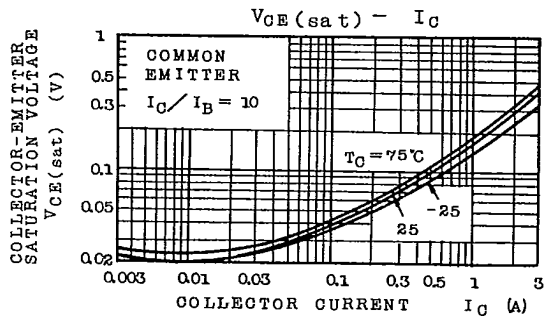
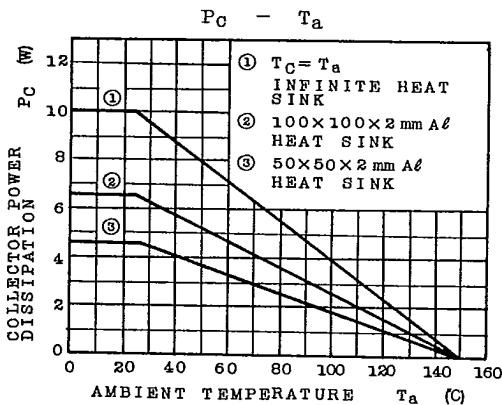
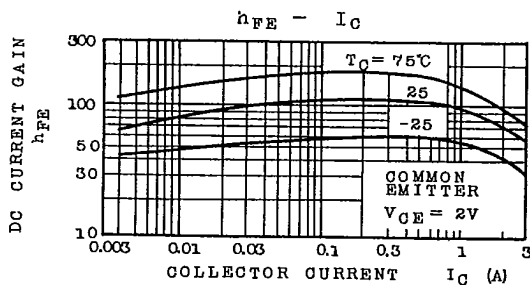
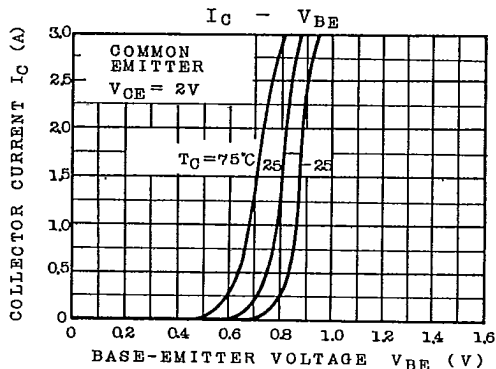
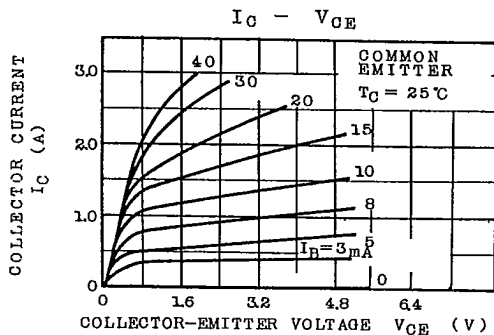
ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=20V, I_E=0$	-	-	1.0	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	1.0	$\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	30	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1\text{mA}, I_C=0$	5	-	-	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE}=2V, I_C=0.5A$	70	-	240	
	$h_{FE(2)}$	$V_{CE}=2V, I_C=2.5A$	25	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2A, I_B=0.2A$	-	0.3	0.8	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE}=2V, I_C=0.5A$	-	0.75	1.0	V
Transition Frequency	$f_T$	$V_{CE}=2V, I_C=0.5A$	-	100	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1\text{MHz}$	-	35	-	pF

Note:  $h_{FE(1)}$  Classification O : 70 ~ 140, Y : 120 ~ 240

TOSHIBA CORPORATION

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Datasheets for electronic components.