

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

## 2SA1203

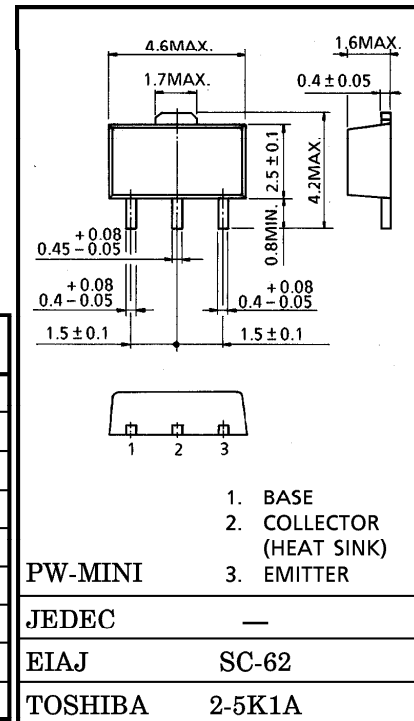
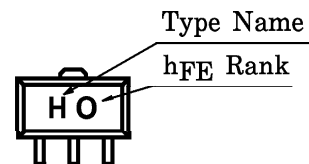
AUDIO FREQUENCY AMPLIFIER APPLICATIONS

Unit in mm

- Suitable for Output Stage of 3 Watts Amplifier
- $P_C = 1 \sim 2W$  (Mounted on Ceramic Substrate)
- Small Flat Package
- Complementary to 2SC2883

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

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	$I_C$	-1.5	A
Base Current	$I_B$	-0.3	A
Collector Power Dissipation	$P_C$	500	mW
Collector Power Dissipation	$P_C^*$	1000	mW
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ C$

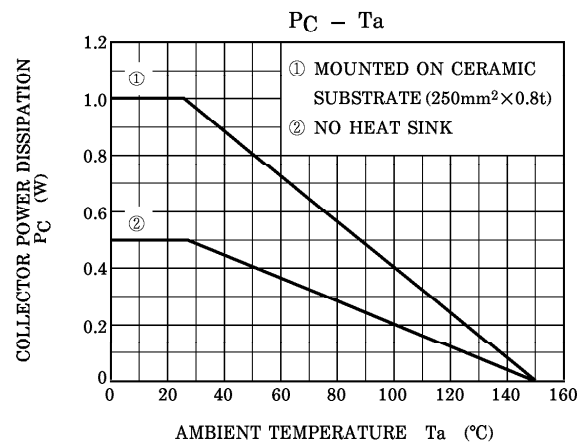
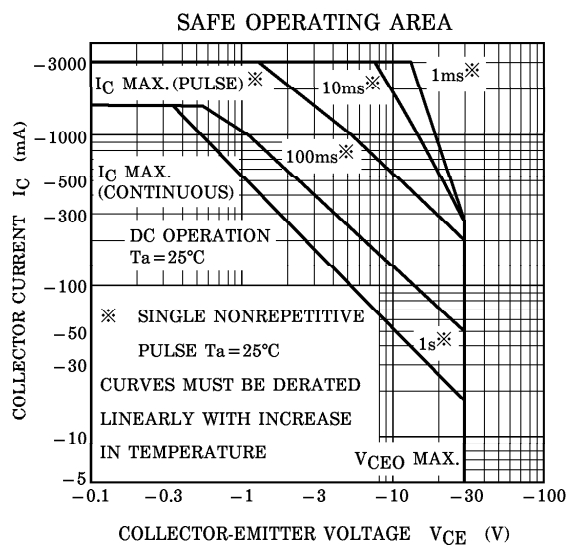
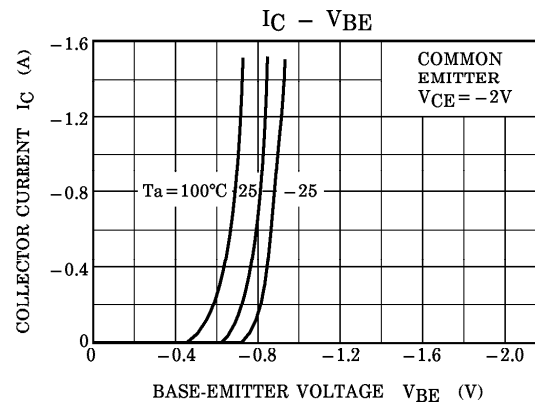
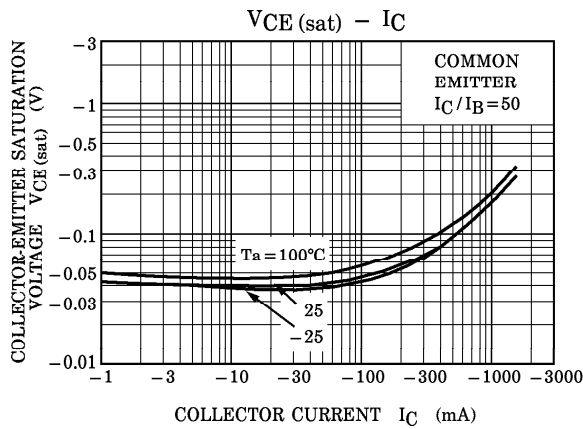
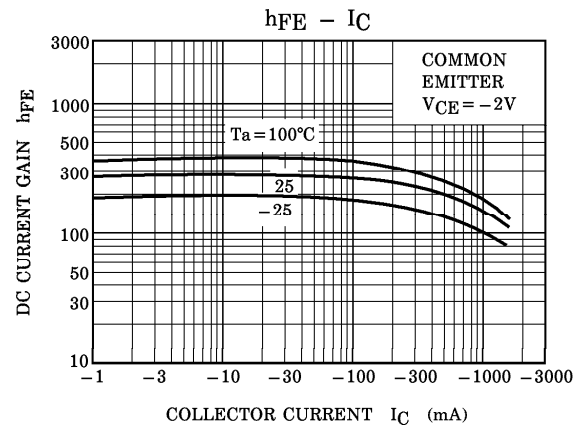
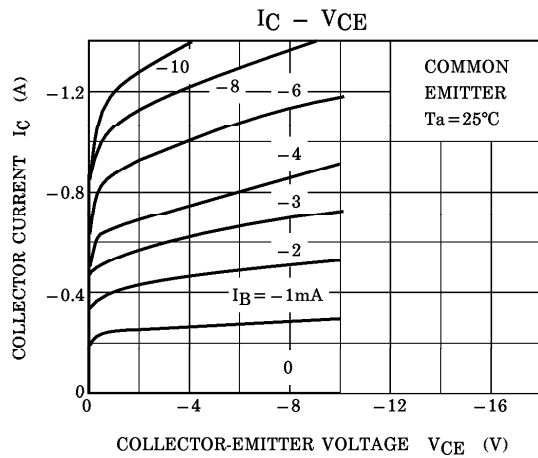
 $P_C^*$  : Mounted on ceramic substrate ( $250mm^2 \times 0.8t$ )Weight : 0.05g  
MarkingELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -30V, I_E = 0$	—	—	-0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$	—	—	-0.1	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR) CEO}$	$I_C = -10mA, I_B = 0$	-30	—	—	V
Emitter-Base Breakdown Voltage	$V_{(BR) EBO}$	$I_E = -1mA, I_C = 0$	-5	—	—	V
DC Current Gain	$h_{FE} (Note)$	$V_{CE} = -2V, I_C = -500mA$	100	—	320	
Collector-Emitter Saturation Voltage	$V_{CE (sat)}$	$I_C = -1.5A, I_B = -0.03A$	—	—	-2.0	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = -2V, I_C = -500mA$	—	—	-1.0	V
Transition Frequency	$f_T$	$V_{CE} = -2V, I_C = -500mA$	—	120	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$	—	—	50	pF

Note :  $h_{FE}$  Classification    O : 100~200,    Y : 160~320

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