

TOSHIBA

2SA1313

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

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AUDIO FREQUENCY LOW POWER AMPLIFIER APPLICATIONS

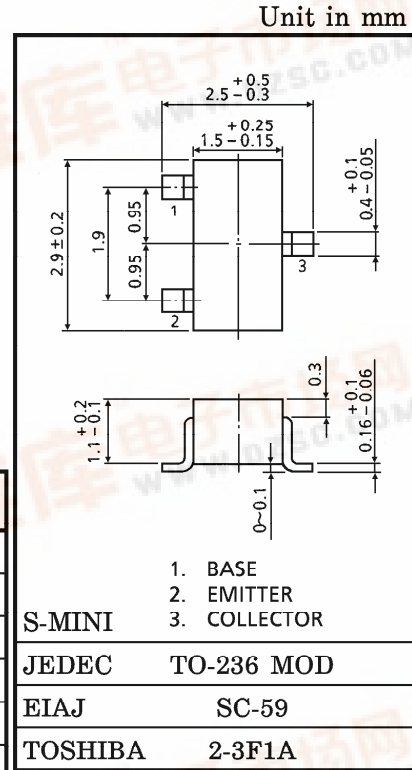
DRIVER STAGE AMPLIFIER APPLICATIONS

SWITCHING APPLICATIONS

- Excellent h_{FE} Linearity
: $h_{FE(2)} = 25$ (Min.) at $V_{CE} = -6V$, $I_C = -400mA$
- High Voltage : $V_{CEO} = -50V$ (Min.)
- Complementary to 2SC3325
- Small Package

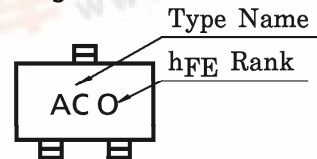
MAXIMUM RATINGS ($T_a = 25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-500	mA
Base Current	I_B	-50	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$



Weight : 0.012g

Marking



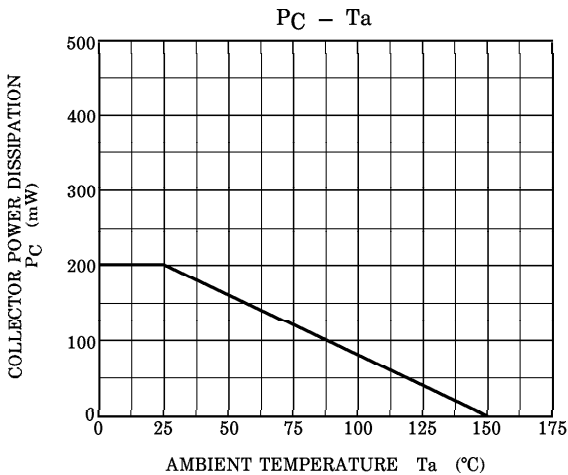
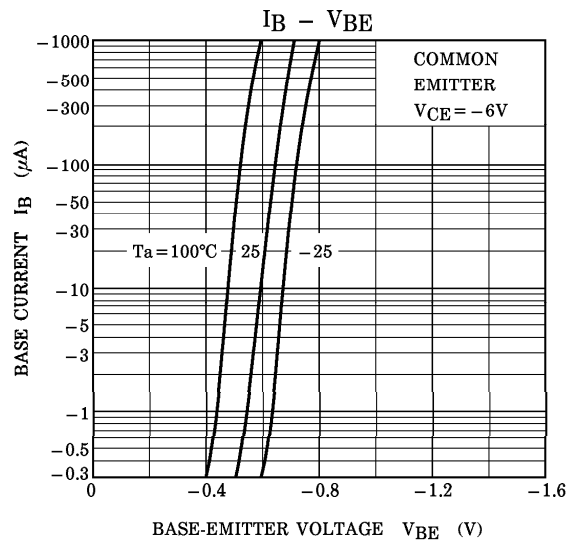
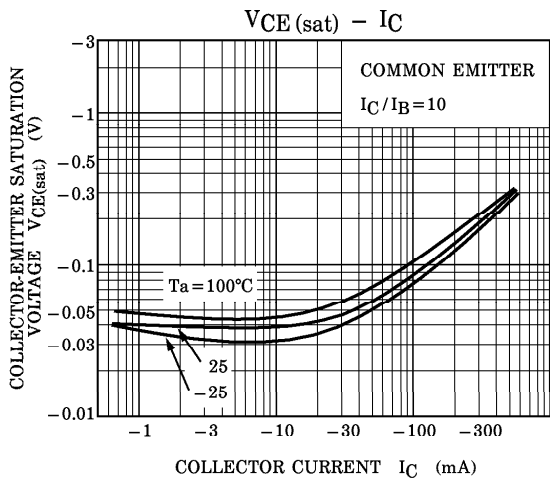
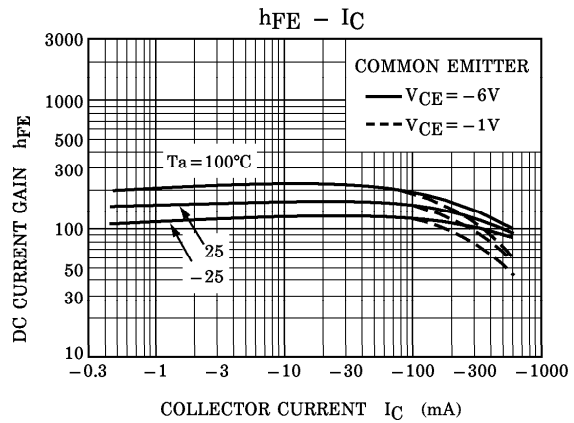
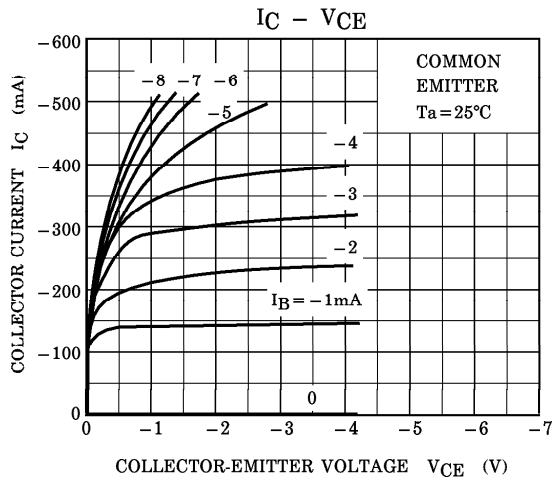
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -50V, I_E = 0$	—	—	-0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5V, I_C = 0$	—	—	-0.1	μA
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE} = -1V, I_C = -100mA$	70	—	240	
	$h_{FE(2)}$ (Note)	$V_{CE} = -6V, I_C = -400mA$	25	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$	—	-0.1	-0.25	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = -1V, I_C = -100mA$	—	-0.8	-1.0	V
Transition Frequency	f_T	$V_{CE} = -6V, I_C = -20mA$	—	200	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -6V, I_E = 0, f = 1MHz$	—	13	—	pF

Note : $h_{FE(1)}$ Classification O : 70~140, Y : 120~240
 $h_{FE(2)}$ Classification O : 25 (Min.) Y : 40 (Min.)

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