

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE (PCT PROCESS)

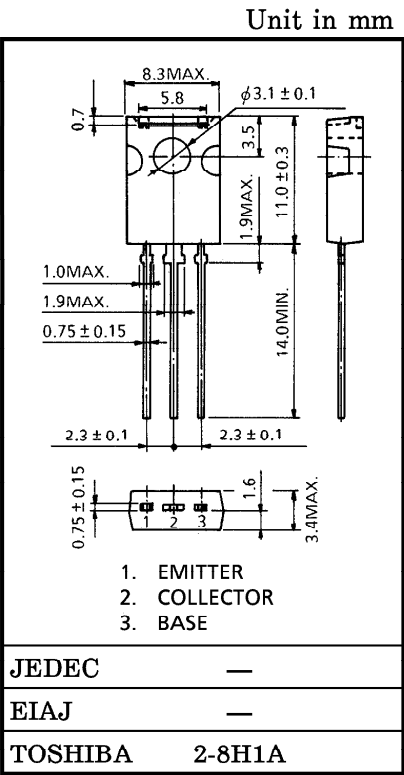
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HIGH VOLTAGE GENERAL AMPLIFIER APPLICATIONS
 COLOR TV CLASS B SOUND OUTPUT APPLICATIONS

- High Voltage : $V_{CEO}=160V$

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	200	V
Collector-Emitter Voltage	V_{CEO}	160	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	200	mA
Base Current	I_B	100	mA
Collector Power Dissipation	P_C	1.5	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	$-55 \sim 150$	$^\circ C$



Weight : 1.4g (Typ.)

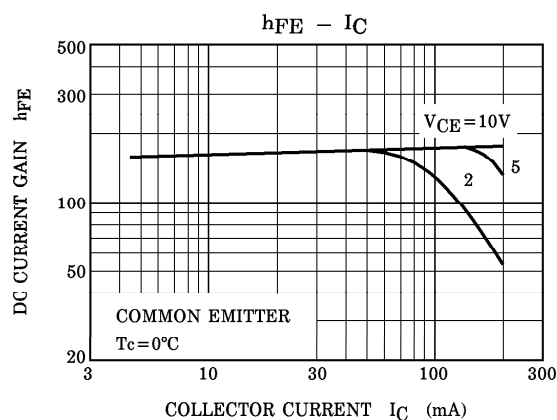
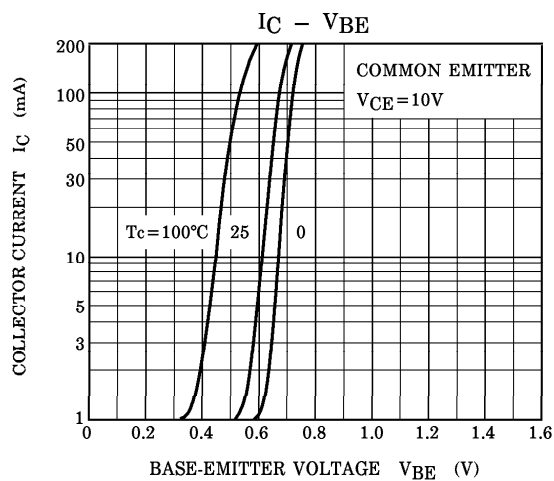
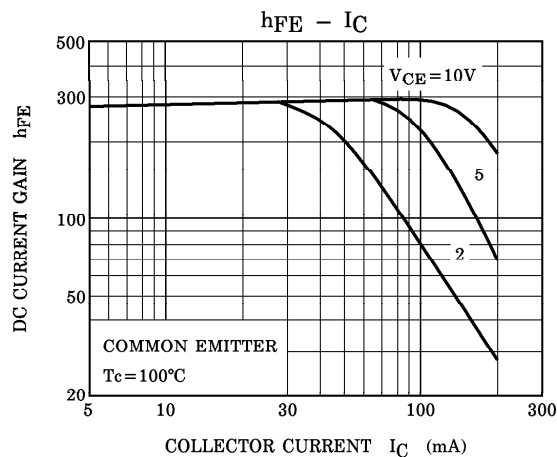
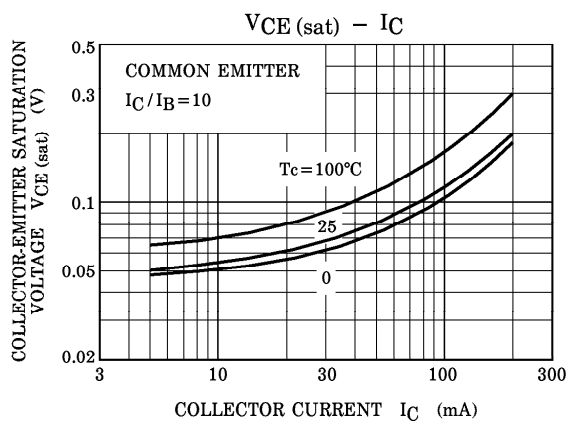
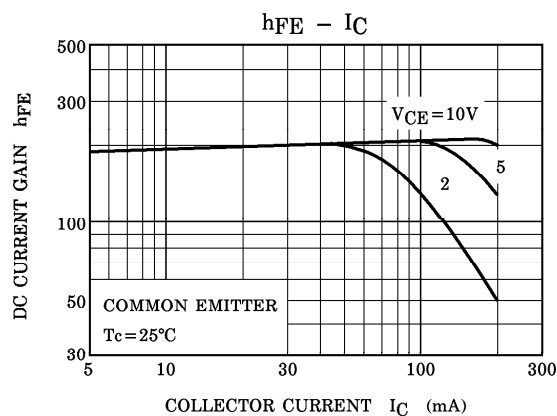
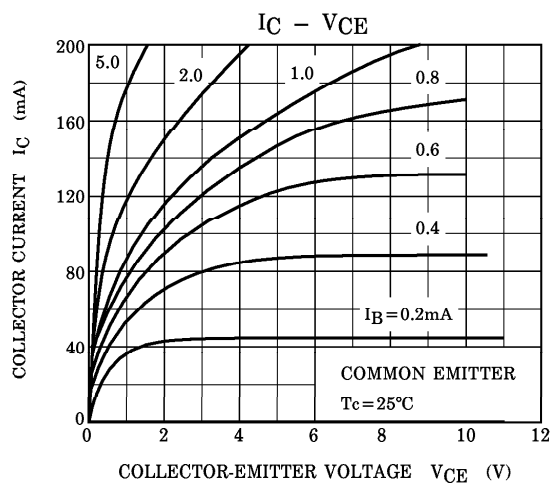
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=200V, I_E=0$	—	—	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)	$V_{CE}=10V, I_C=50mA$	100	—	320	
	$h_{FE(2)}$	$V_{CE}=10V, I_C=150mA$	80	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=200mA, I_B=20mA$	—	—	1.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=10V, I_C=5mA$	0.55	0.65	0.75	V
Transition Frequency	f_T	$V_{CE}=10V, I_C=50mA$	50	—	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	—	—	10	pF

Note : $h_{FE(1)}$ Classification O : 100~200, Y : 160~320

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