

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

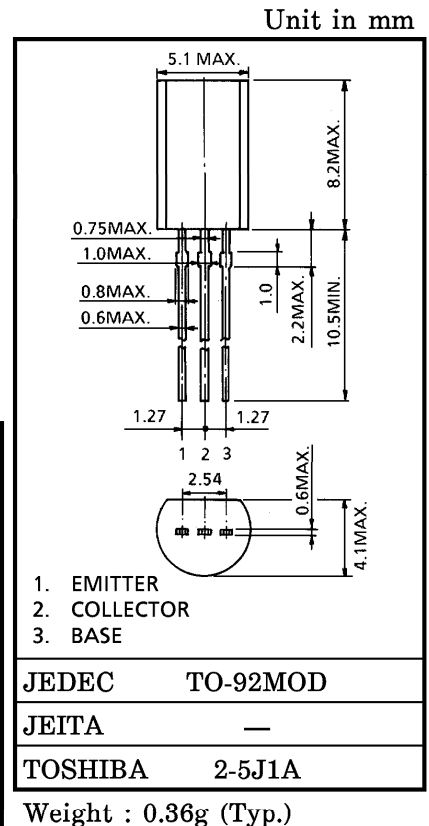
2SC2229

- BLACK AND WHITE TV VIDEO OUTPUT APPLICATIONS
- HIGH VOLTAGE SWITCHING APPLICATIONS
- DRIVER STAGE AUDIO AMPLIFIER APPLICATIONS

- High Breakdown Voltage : $V_{CE0} = 150V$ (Min.)
- Low Output Capacitance : $C_{ob} = 5.0pF$ (Max.)
- High Transition Frequency : $f_T = 120MHz$ (Typ.)

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

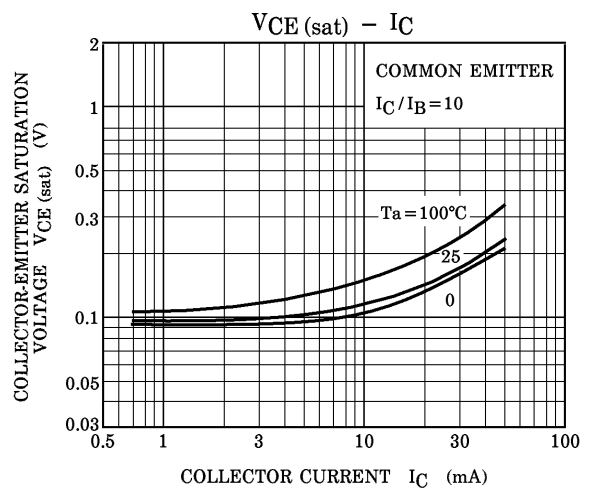
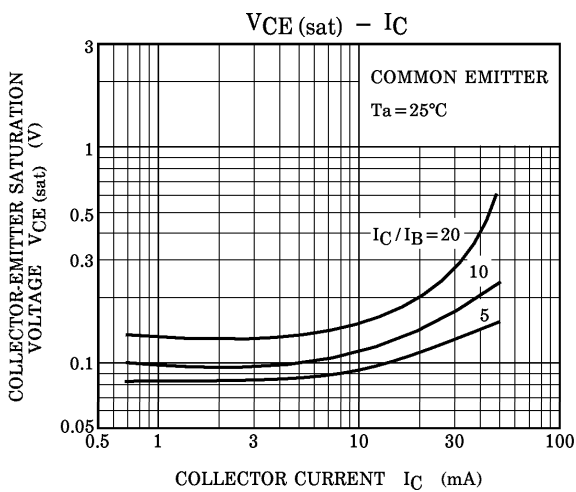
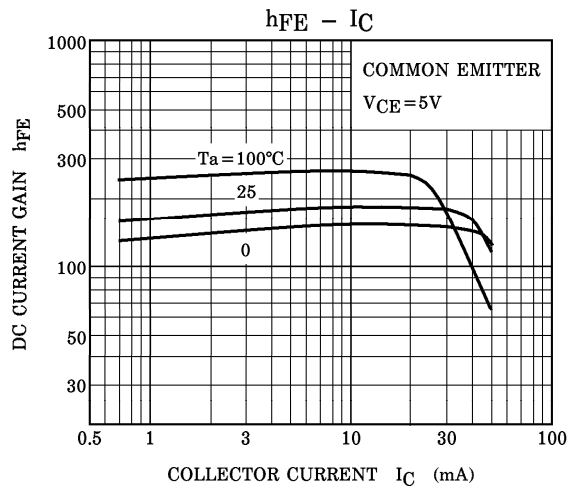
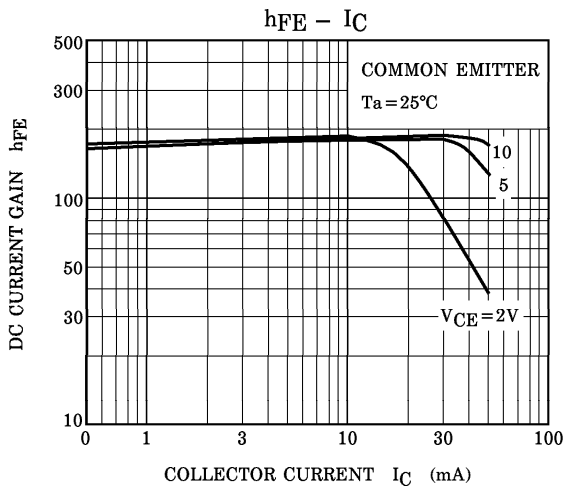
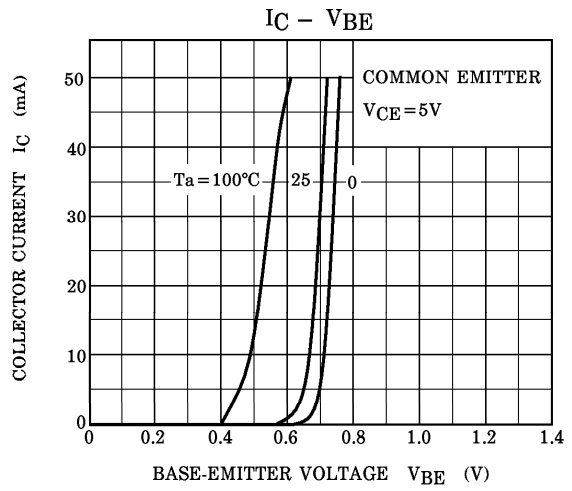
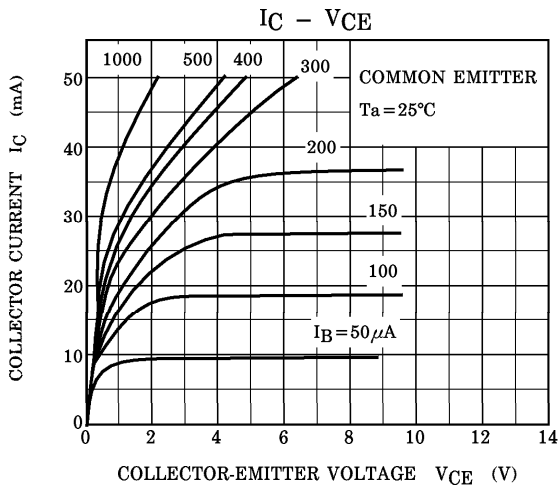
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	200	V
Collector-Emitter Voltage	V_{CEO}	150	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	50	mA
Base Current	I_B	20	mA
Collector Power Dissipation	P_C	800	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$

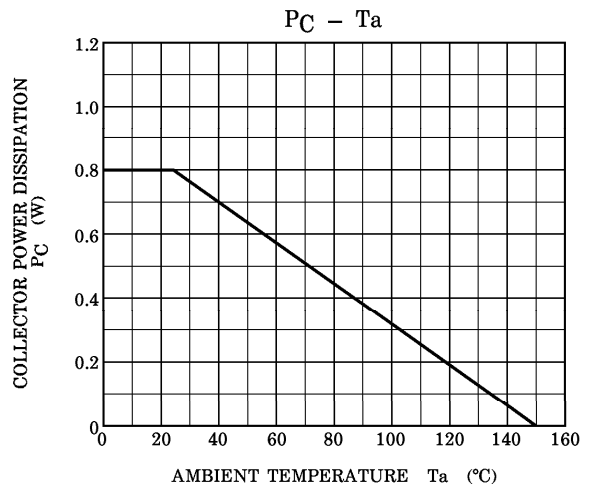
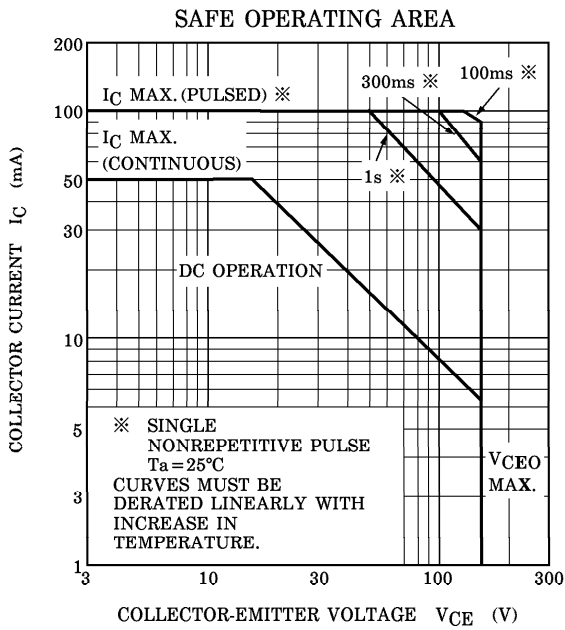
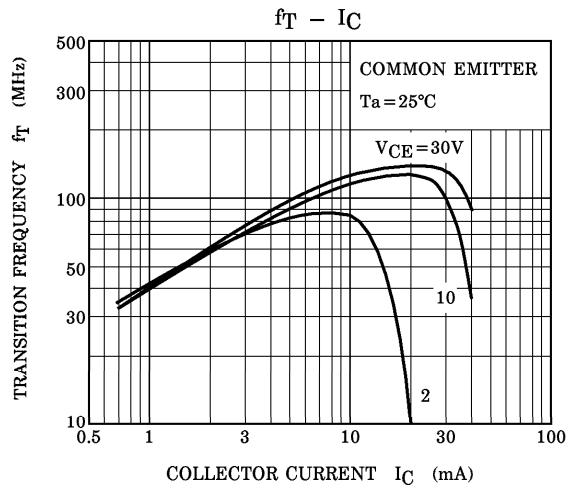
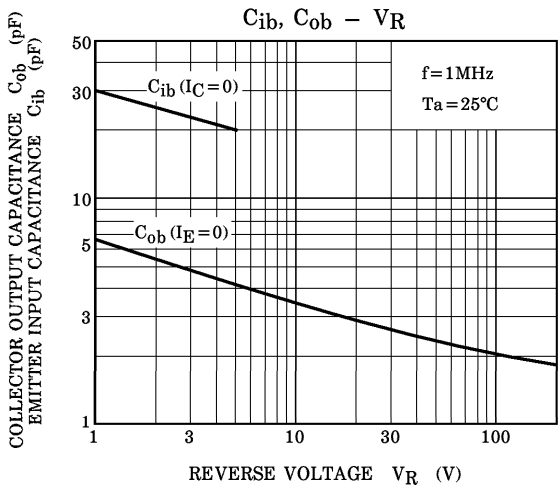


ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

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} (Note)	$V_{CE} = 5V, I_C = 10mA$	70	—	240	
Collector-Emitter Saturation Voltage	V_{CE} (sat)	$I_C = 10mA, I_B = 1mA$	—	—	0.5	V
Base-Emitter Saturation Voltage	V_{BE} (sat)	$I_C = 10mA, I_B = 1mA$	—	—	1	V
Transition Frequency	f_T	$V_{CE} = 30V, I_C = 10mA$	—	120	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$	—	3.5	5	pF

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





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