

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2SC5242

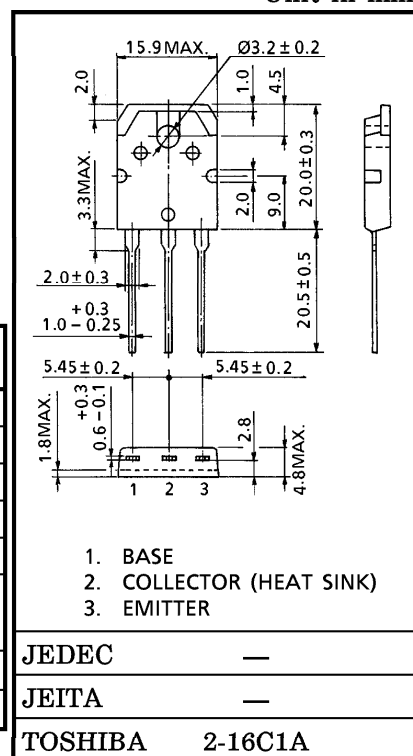
POWER AMPLIFIER APPLICATIONS

- High Collector Breakdown Voltage : $V_{CEO}=230V$ (Min.)
- Complementary to 2SA1962
- Recommend for 80W High Fidelity Audio Frequency Amplifier Output Stage.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	230	V
Collector-Emitter Voltage	V_{CEO}	230	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	15	A
Base Current	I_B	1.5	A
Collector Power Dissipation ($T_c = 25^\circ C$)	P_C	130	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	$-55 \sim 150$	$^\circ C$

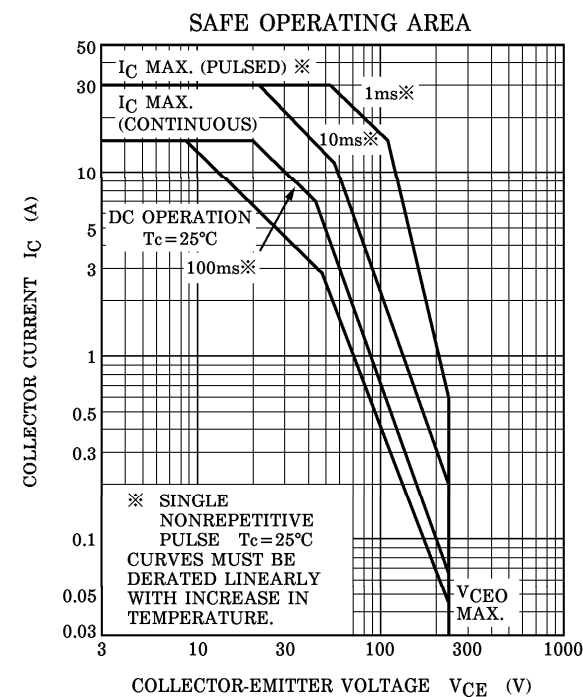
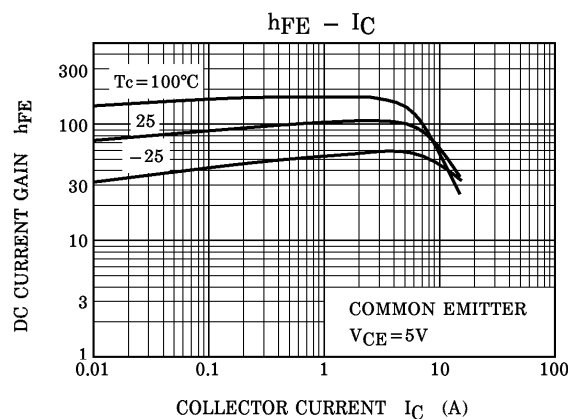
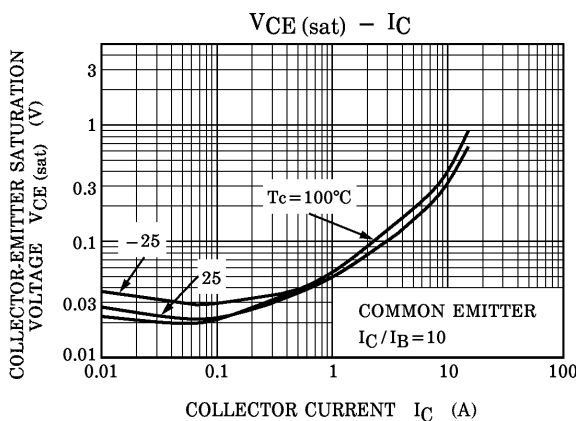
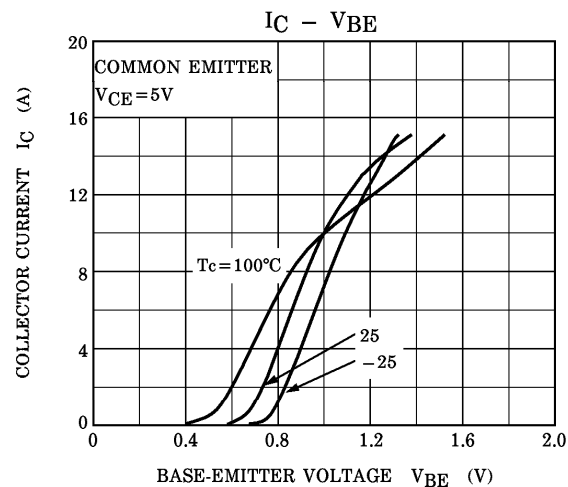
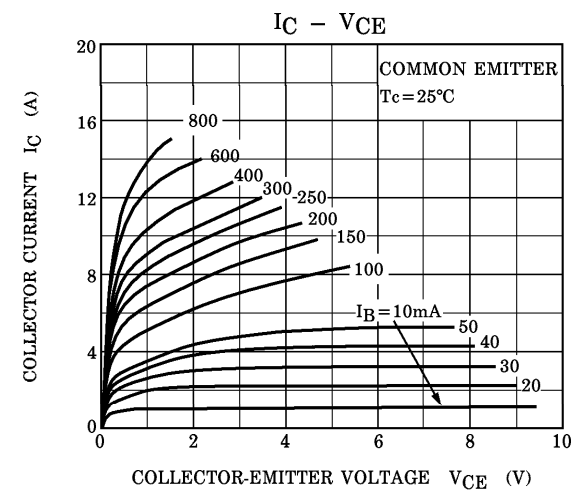
Unit in mm

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

Weight : 4.7g (Typ.)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=230V, I_E=0$	—	—	5.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V, I_C=0$	—	—	5.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR) CEO}$	$I_C=50mA, I_B=0$	230	—	—	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE}=5V, I_C=1A$	55	—	160	
	$h_{FE(2)}$	$V_{CE}=5V, I_C=7A$	35	60	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=8A, I_B=0.8A$	—	0.4	3.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=5V, I_C=7A$	—	1.0	1.5	V
Transition Frequency	f_T	$V_{CE}=5V, I_C=1A$	—	30	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	—	200	—	pF

(Note) : $h_{FE(1)}$ Classification R : 55~110, O : 80~160



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