

TOSHIBA Transistor Silicon PNP Triple Diffused Type

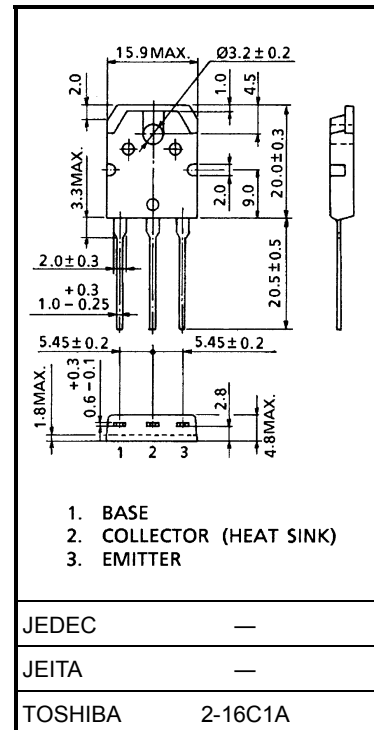
2SA1941

Power Amplifier Applications

- High breakdown voltage: $V_{CEO} = -140 \text{ V (min)}$
- Complementary to 2SC5198
- Recommended for 70-W high-fidelity audio frequency amplifier output stage.

Maximum Ratings (Tc = 25°C)

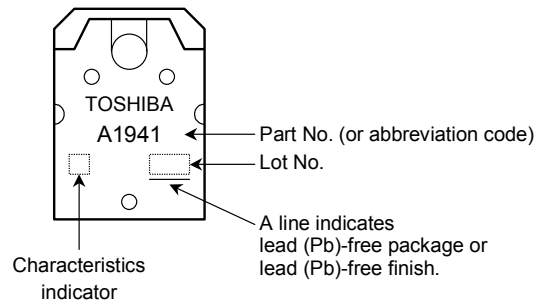
Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-140	V
Collector-emitter voltage	V_{CEO}	-140	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-10	A
Base current	I_B	-1	A
Collector power dissipation ($T_c = 25^\circ\text{C}$)	P_C	100	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to 150	$^\circ\text{C}$

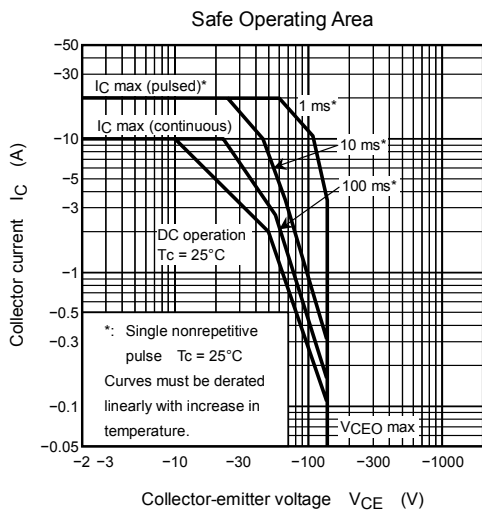
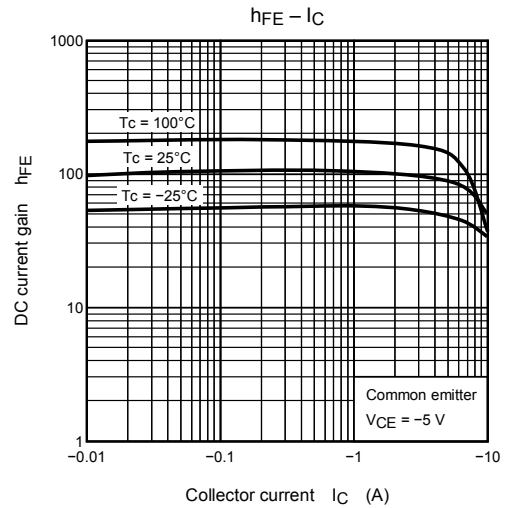
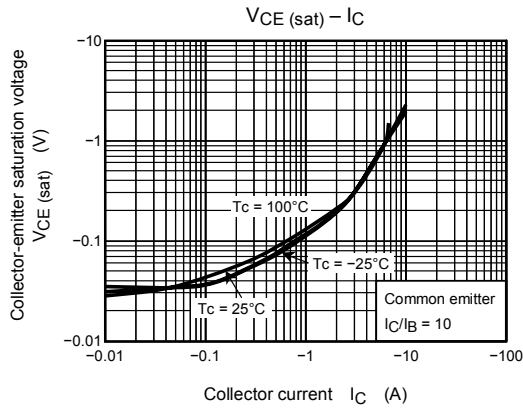
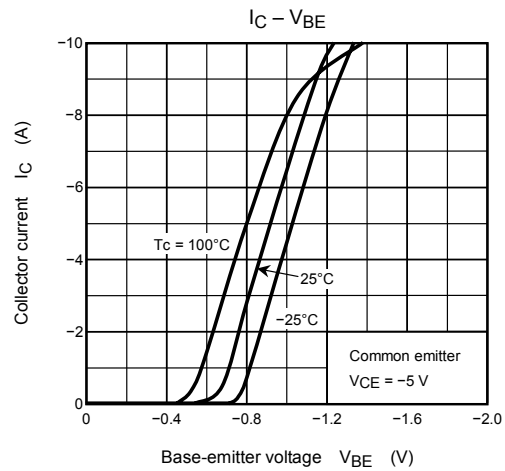
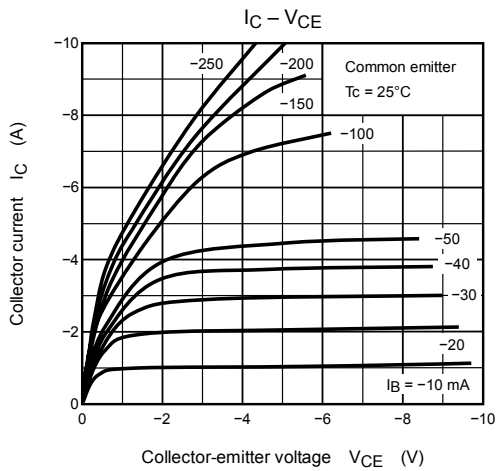


Electrical Characteristics (Tc = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = -140\text{ V}$, $I_E = 0$	—	—	-5.0	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\text{ V}$, $I_C = 0$	—	—	-5.0	μA
Collector-emitter breakdown voltage	$V_{(BR)\text{ CEO}}$	$I_C = -50\text{ mA}$, $I_B = 0$	-140	—	—	V
DC current gain	$h_{FE(1)}$ (Note)	$V_{CE} = -5\text{ V}$, $I_C = -1\text{ A}$	55	—	160	
	$h_{FE(2)}$	$V_{CE} = -5\text{ V}$, $I_C = -5\text{ A}$	35	83	—	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -7\text{ A}$, $I_B = -0.7\text{ A}$	—	-0.8	-2.0	V
Base-emitter voltage	V_{BE}	$V_{CE} = -5\text{ V}$, $I_C = -5\text{ A}$	—	-1.0	-1.5	V
Transition frequency	f_T	$V_{CE} = -5\text{ V}$, $I_C = -1\text{ A}$	—	30	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$	—	320	—	pF

Note: h_{FE} (1) classification R: 55 to 110, O: 80 to 160

Marking



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