

TOSHIBA Transistor Silicon PNP Triple Diffused Type

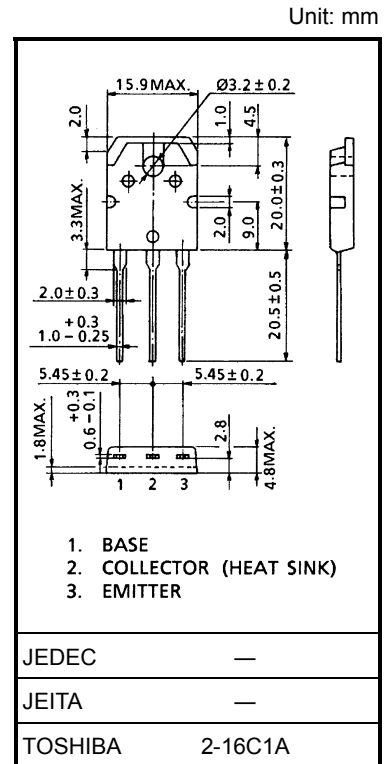
2SA1940

Power Amplifier Applications

- Complementary to 2SC5197
- Recommended for 55-W high-fidelity audio frequency amplifier output stage

Maximum Ratings (Tc = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	-120	V
Collector-emitter voltage	V _{CEO}	-120	V
Emitter-base voltage	V _{EBO}	-5	V
Collector current	I _C	-8	A
Base current	I _B	-0.8	A
Collector power dissipation (Tc = 25°C)	P _C	80	W
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-55 to 150	°C



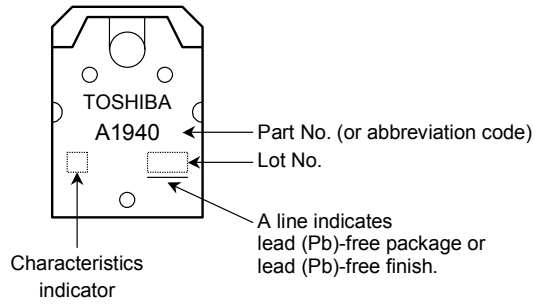
Electrical Characteristics (Tc = 25°C)

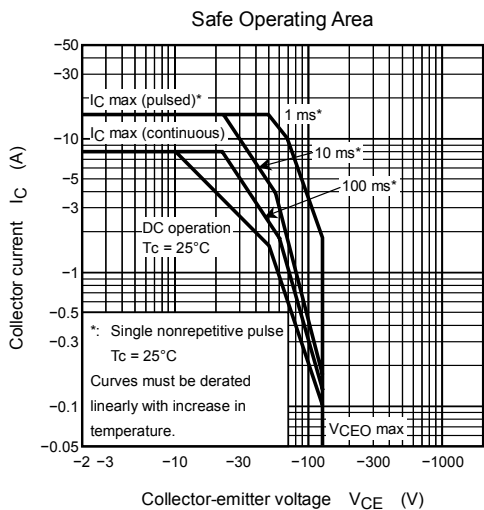
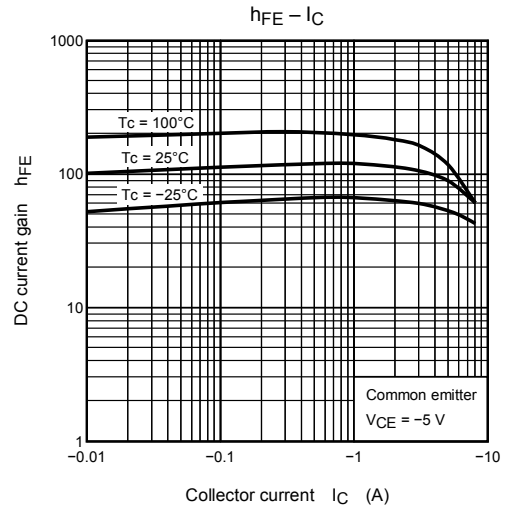
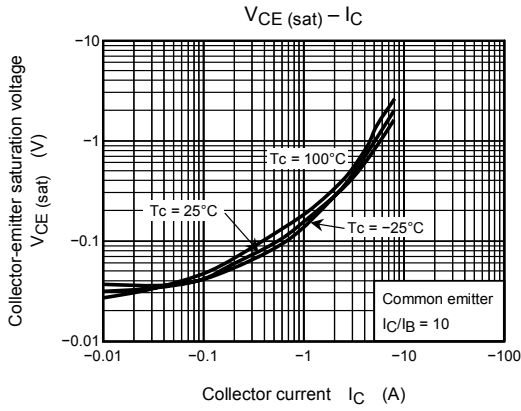
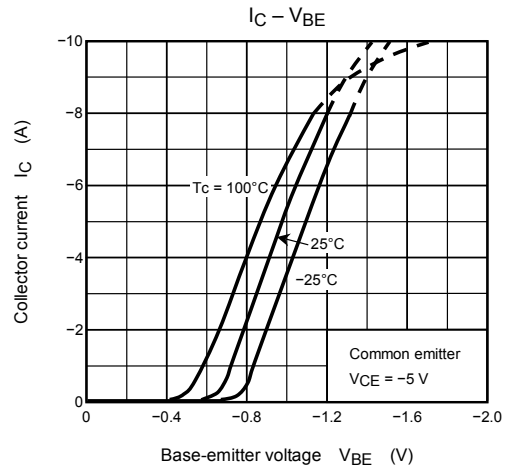
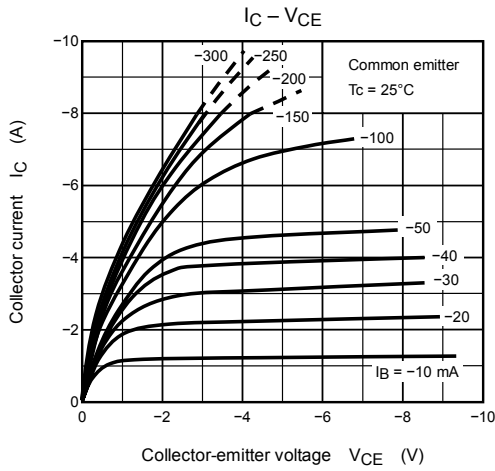
Weight: 4.7 g (typ.)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I _{CBO}	V _{CB} = -120 V, I _E = 0	—	—	-5.0	μA
Emitter cut-off current	I _{EBO}	V _{EB} = -5 V, I _C = 0	—	—	-5.0	μA
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = -50 mA, I _B = 0	-120	—	—	V
DC current gain	h _{FE} (1) (Note)	V _{CE} = -5 V, I _C = -1 A	55	—	160	
	h _{FE} (2)	V _{CE} = -5 V, I _C = -4 A	35	75	—	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = -6 A, I _B = -0.6 A	—	-0.80	-2.0	V
Base-emitter voltage	V _{BE}	V _{CE} = -5 V, I _C = -4 A	—	-0.97	-1.5	V
Transition frequency	f _T	V _{CE} = -5 V, I _C = -1 A	—	30	—	MHz
Collector output capacitance	C _{ob}	V _{CB} = -10 V, I _E = 0, f = 1 MHz	—	260	—	pF

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

Marking





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