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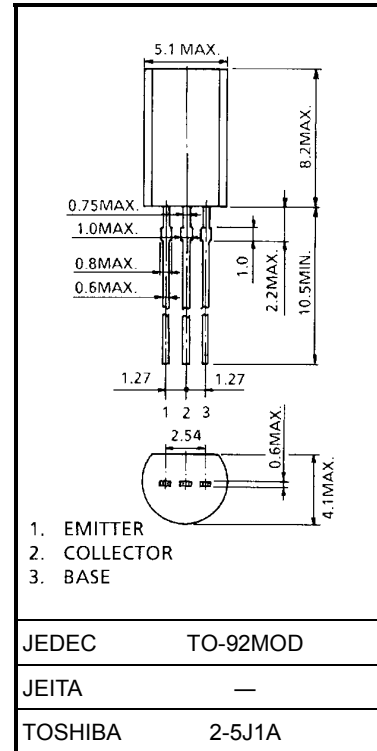
Driver-Stage Audio Amplifier Applications
High-Voltage Switching Applications

Unit: mm

- High breakdown voltage: $V_{CE0} = -150\text{ V}$
- Low output capacitance: $C_{ob} = 5.0\text{ pF (max)}$
- High transition frequency: $f_T = 120\text{ MHz (typ.)}$

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-150	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	5	mA
Collector power dissipation	P_C	800	mW
Junction temperature	T_J	150	°C
Storage temperature range	T_{stg}	-55 to 150	°C



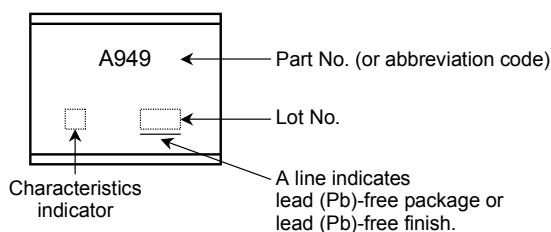
Electrical Characteristics (Ta = 25°C)

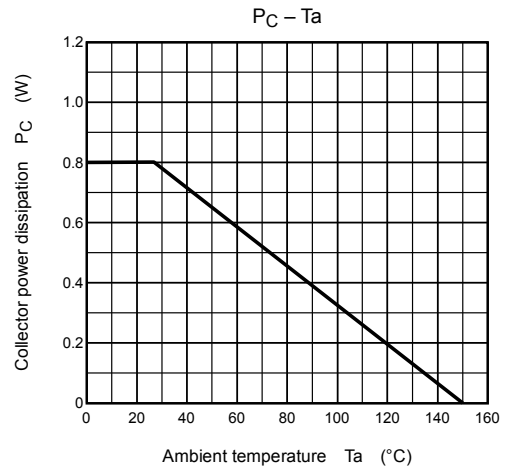
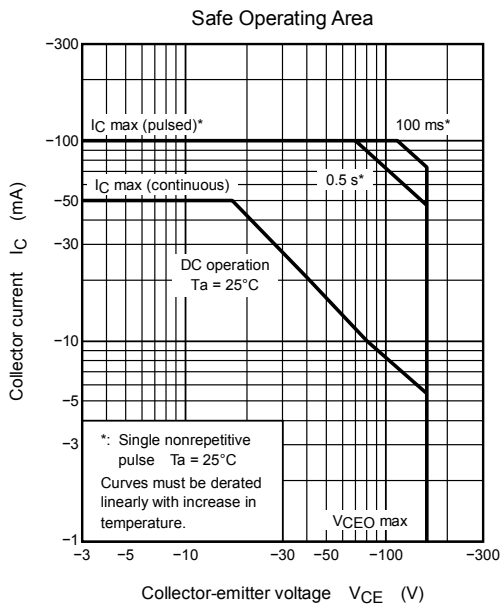
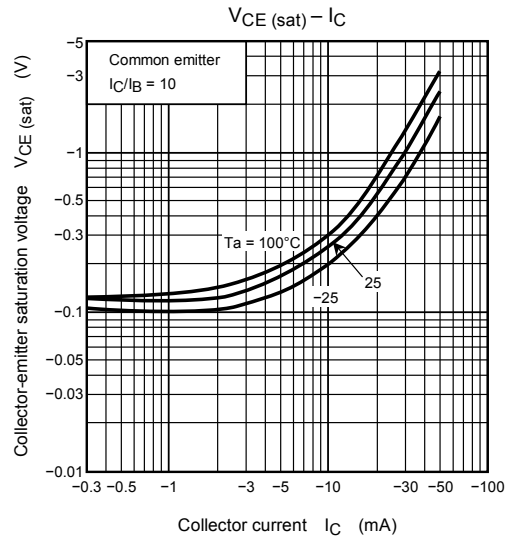
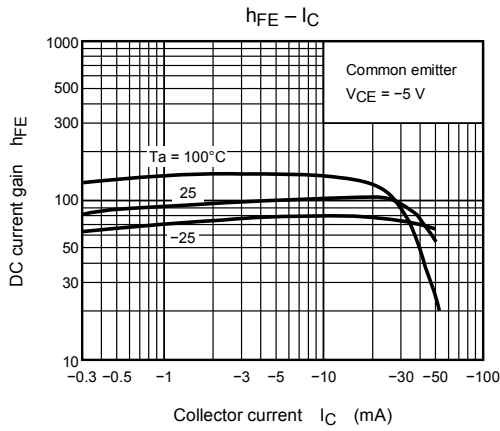
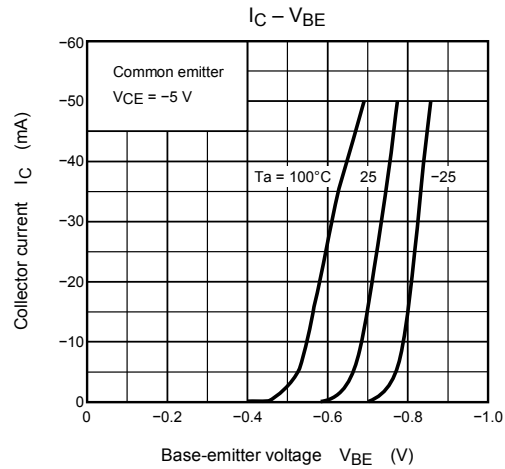
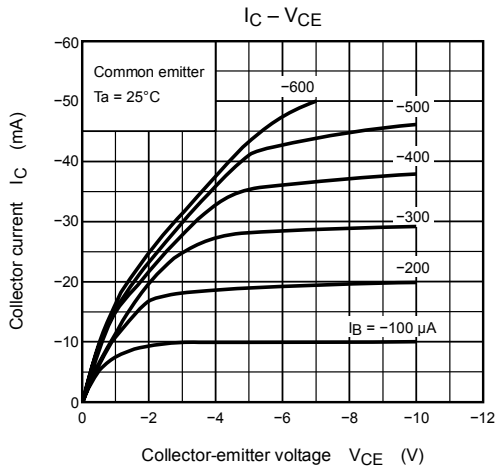
Weight: 0.36 g (typ.)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = -150\text{ V}, I_E = 0$	—	—	-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\text{ V}, I_C = 0$	—	—	-0.1	μA
DC current gain	h_{FE} (Note)	$V_{CE} = -5\text{ V}, I_C = -10\text{ mA}$	70	—	240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10\text{ mA}, I_B = -1\text{ mA}$	—	—	-0.8	V
Base-emitter voltage	V_{BE}	$V_{CE} = -5\text{ V}, I_C = -30\text{ mA}$	—	—	-0.9	V
Transition frequency	f_T	$V_{CE} = -30\text{ V}, I_C = -10\text{ mA}$	—	120	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	4.0	5.0	pF

Note: h_{FE} classification O: 70 to 140, Y: 120 to 240

Marking





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