

TOSHIBA Transistor Silicon PNP Epitaxial Type

2SA2182

Power Amplifier Applications
 Driver Stage Amplifier Applications

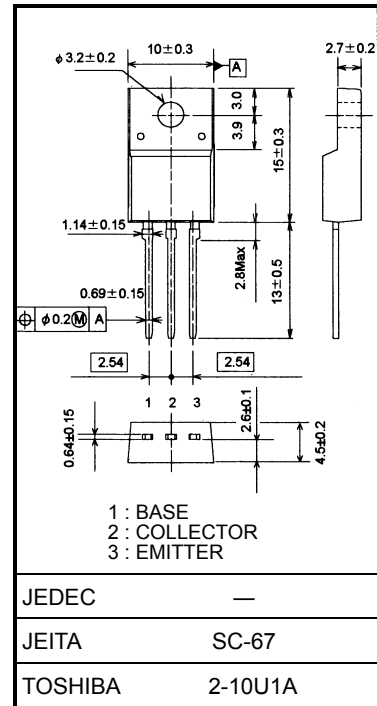
- High transition frequency: $f_T = 80 \text{ MHz (typ.)}$

Absolute Maximum Ratings ($T_c = 25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit	
Collector-base voltage	V_{CB0}	- 230	V	
Collector-emitter voltage	V_{CE0}	- 230	V	
Emitter-base voltage	V_{EB0}	- 5	V	
Collector current	DC	I_C	- 1.0	A
	pulse	I_{CP}	- 2.0	A
Base current	I_B	- 100	mA	
Collector power dissipation	$T_a = 25^\circ\text{C}$	P_C	2	W
	$T_c = 25^\circ\text{C}$		20	W
Junction temperature	T_j	150	$^\circ\text{C}$	
Storage temperature range	T_{stg}	- 55~150	$^\circ\text{C}$	

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings. Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/Derating Concept and Methods) and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

Unit: mm

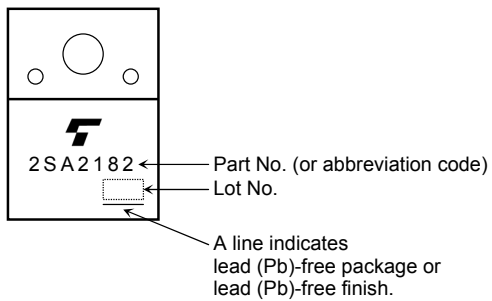


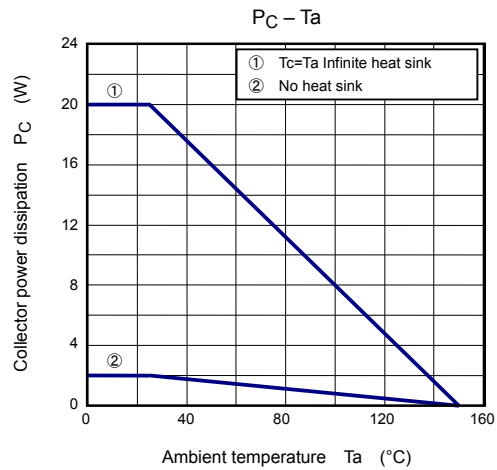
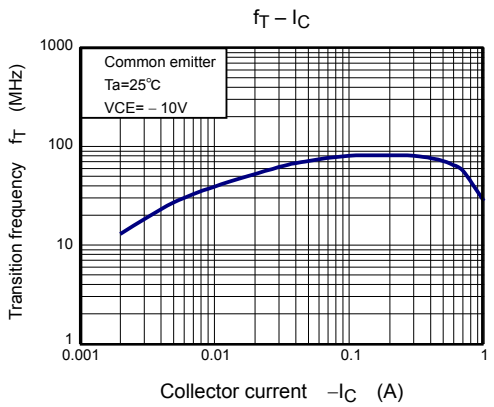
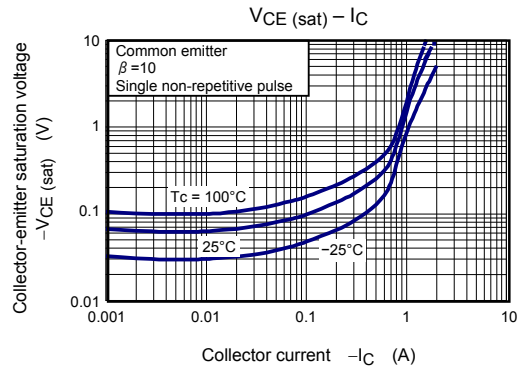
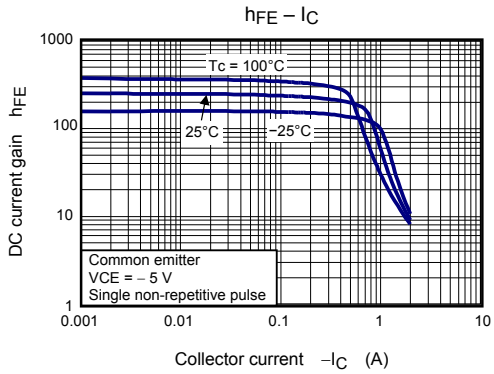
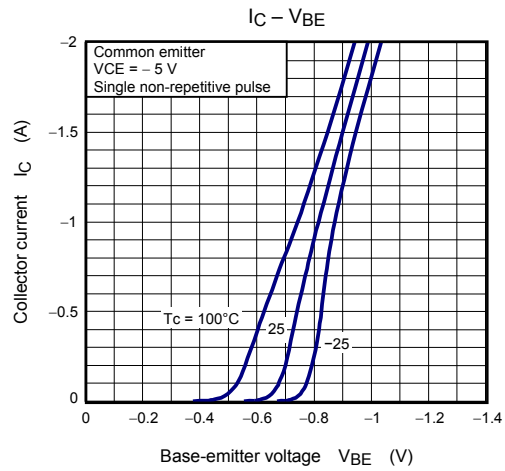
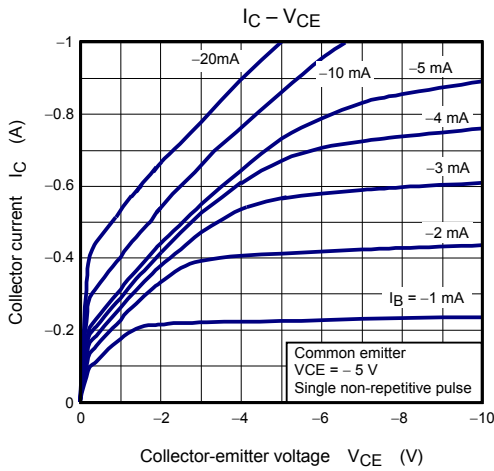
Weight: 1.7 g (typ.)

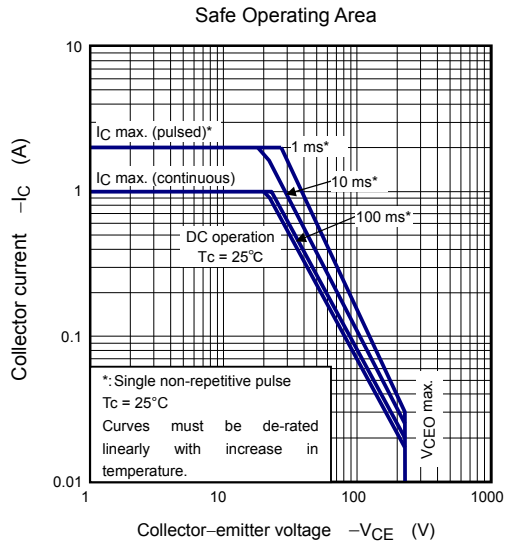
Electrical Characteristics (Tc = 25°C)

Characteristic	Symbol	Test Conditions	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = -230\text{ V}, I_E = 0$	—	—	-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\text{ V}, I_C = 0$	—	—	-100	nA
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10\text{ mA}, I_B = 0$	-230	—	—	V
DC current gain	h_{FE}	$V_{CE} = -5\text{ V}, I_C = -0.1\text{ A}$	100	—	320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{ mA}, I_B = -50\text{ mA}$	—	—	-0.5	V
Base-emitter voltage	V_{BE}	$V_{CE} = -5\text{ V}, I_C = -500\text{ mA}$	—	—	-1.0	V
Transition frequency	f_T	$V_{CE} = -10\text{ V}, I_C = -100\text{ mA}$	—	80	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	22.5	—	pF

Marking







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20070701-EN

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