



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT Process)

2SA1869

Power Amplifier Applications

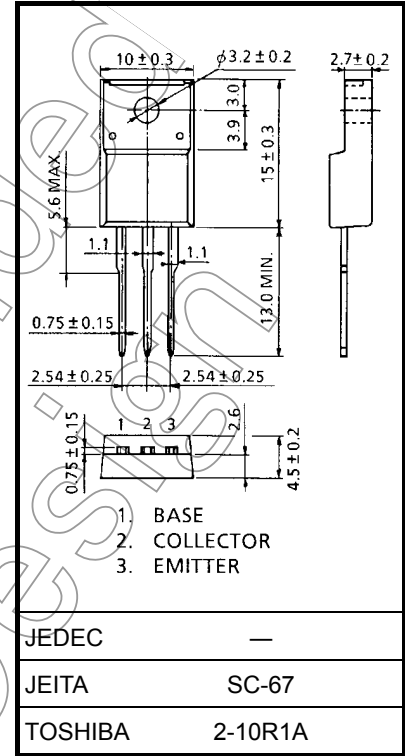
- Good linearity of hFE
- Complementary to 2SC4935

Absolute Maximum Ratings (Tc = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V _{CBO}	-50	V
Collector-emitter voltage	V _{CEO}	-50	V
Emitter-base voltage	V _{EBO}	-5	V
Collector current	I _C	-3	A
Base current	I _B	-0.3	A
Collector power dissipation (Tc = 25°C)	P _C	10	W
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-55 to 150	°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.)

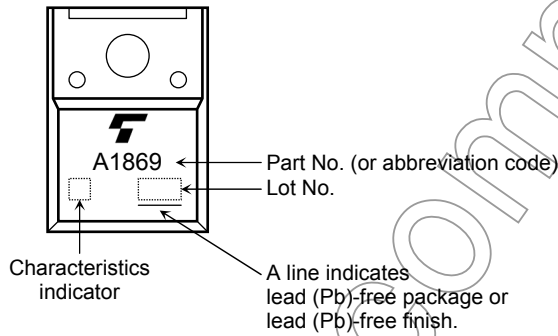
Not for New

Electrical Characteristics (Tc = 25°C)

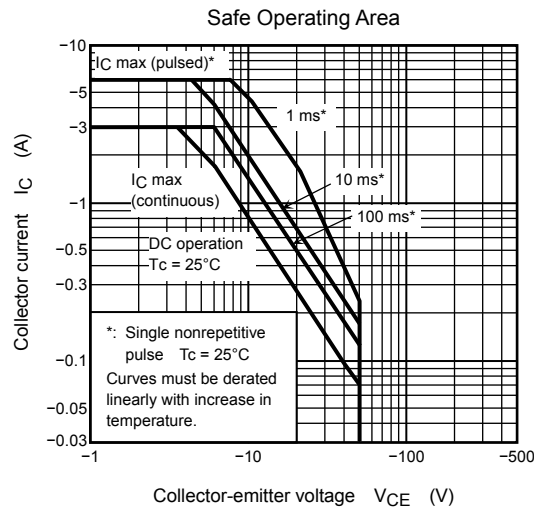
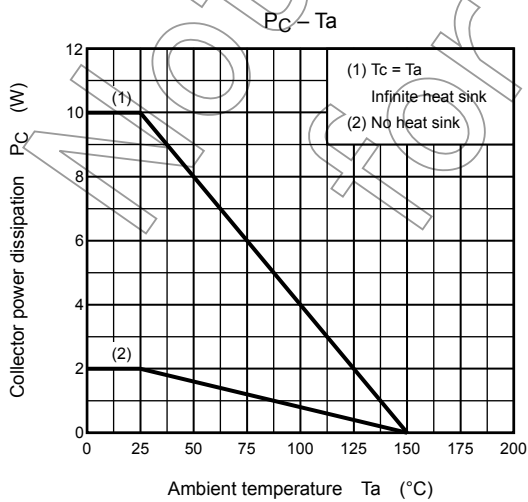
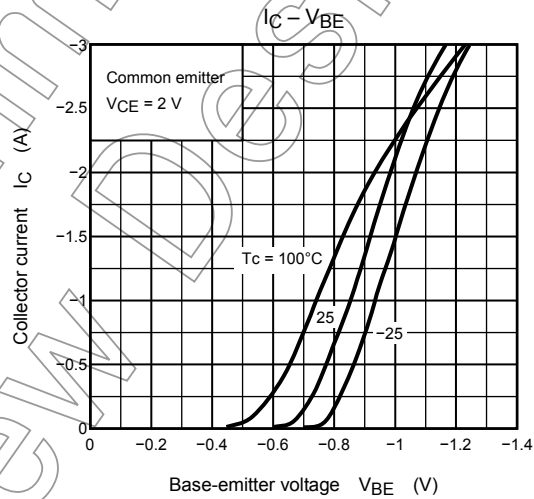
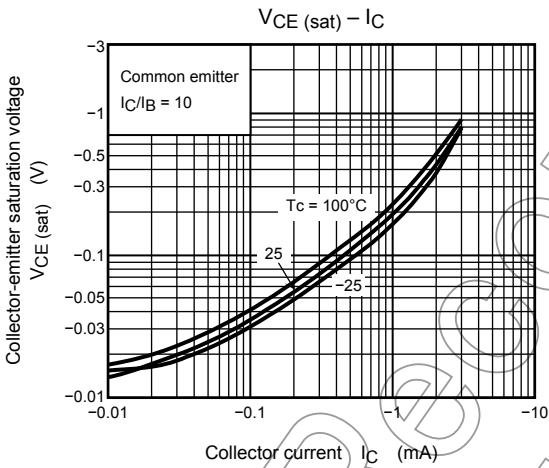
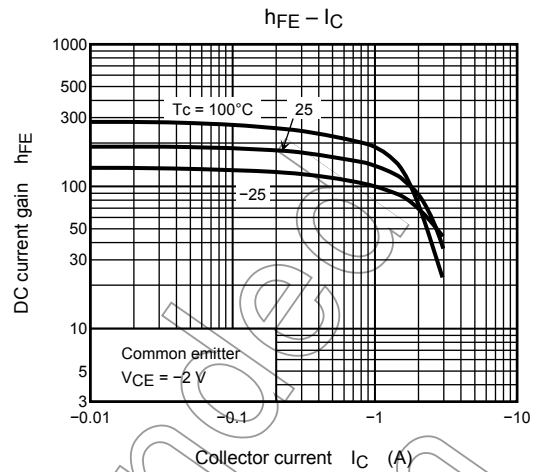
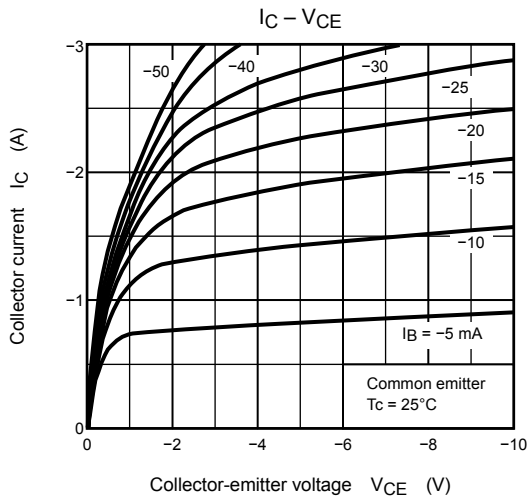
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = -50\text{ V}, I_E = 0$	—	—	-1.0	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\text{ V}, I_C = 0$	—	—	-1.0	μA
Collector-emitter breakdown voltage	$V_{(BR) CEO}$	$I_C = -10\text{ mA}, I_B = 0$	-50	—	—	V
DC current gain	$h_{FE(1)}$ (Note)	$V_{CE} = -2\text{ V}, I_C = -0.5\text{ A}$	70	—	240	
	$h_{FE(2)}$	$V_{CE} = -2\text{ V}, I_C = -2.5\text{ A}$	30	—	—	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -2\text{ A}, I_B = -0.2\text{ A}$	—	-0.3	-0.6	V
Base-emitter voltage	V_{BE}	$V_{CE} = -2\text{ V}, I_C = -0.5\text{ A}$	—	-0.8	-1.0	V
Transition frequency	f_T	$V_{CE} = -2\text{ V}, I_C = -0.5\text{ A}$	—	100	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	35	—	pF

Note: $h_{FE(1)}$ classification O: 70 to 140, Y: 120 to 240

Marking



Not Recommended for New Design



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20070701-EN

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