Unit: mm

TOSHIBA Transistor Silicon PNP Epitaxial Type

2SA1930

Power Amplifier Applications
Driver Stage Amplifier Applications

- High transition frequency: $f_T = 200 \text{ MHz}$ (typ.)
- Complementary to 2SC5171

Absolute Maximum Ratings (Tc = 25°C)

Characteristics		Symbol	Rating	Unit	
Collector-base voltage		V_{CBO}	-180	V	
Collector-emitter voltage		V _{CEO}	-180	V	
Emitter-base voltage		V _{EBO}	-5	V	
Collector current		IC	-2	Α	
Base current		Ι _Β	-1	Α	
Collector power dissipation	Ta = 25°C	D.	2.0	W	
	Tc = 25°C	P _C	20		
Junction temperature		Tj	150	°C	
Storage temperature range		T _{stg}	-55 to 150	°C	

Weight: 1.7 g (typ.)

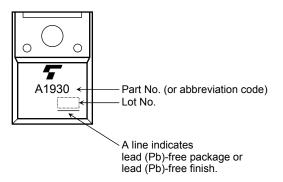
Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in

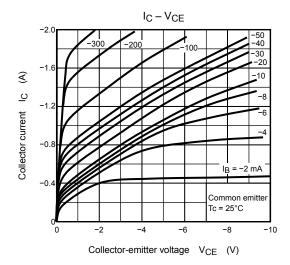
temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings. Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability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

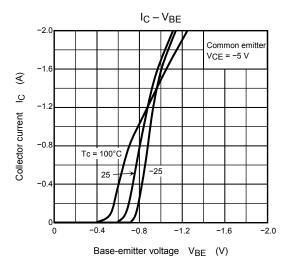
Electrical Characteristics (Tc = 25°C)

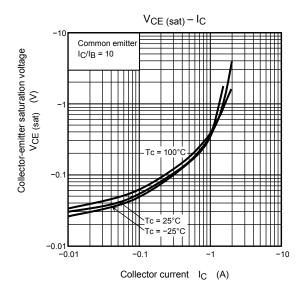
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I _{CBO}	V _{CB} = -180 V, I _E = 0	_	_	-5.0	μΑ
Emitter cut-off current	I _{EBO}	V _{EB} = -5 V, I _C = 0	_	_	-5.0	μΑ
Collector-emitter breakdown voltage	V (BR) CEO	I _C = -10 mA, I _B = 0	-180	_	_	V
DC current gain	h _{FE} (1)	V _{CE} = -5 V, I _C = -0.1 A	100	_	320	
	h _{FE} (2)	V _{CE} = -5 V, I _C = -1 A	50	_	_	
Collector-emitter saturation voltage	V _{CE} (sat)	I _C = -1 A, I _B = -0.1 A	_	-0.24	-1.0	V
Base-emitter voltage	V _{BE}	V _{CE} = -5 V, I _C = -1 A	_	-0.68	-1.5	V
Transition frequency	f _T	$V_{CE} = -10 \text{ V}, I_{C} = -0.3 \text{ A}$	_	200	_	MHz
Collector output capacitance	C _{ob}	V _{CB} = -10 V, I _C = 0, f = 1 MHz	_	26	_	pF

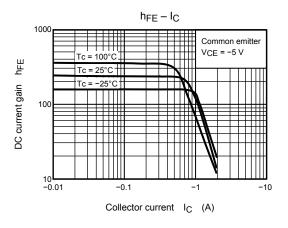
Marking

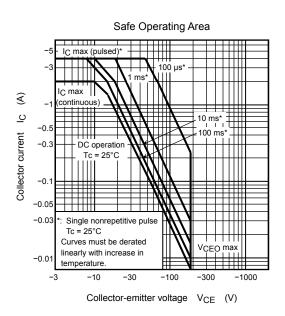




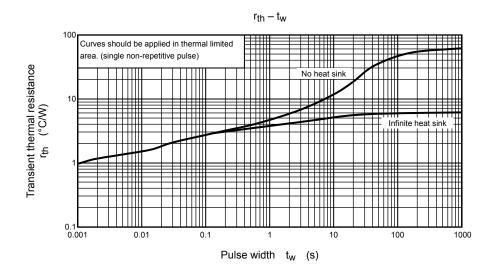








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