TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT process)

2SB905

Power Amplifier Applications

Unit: mm

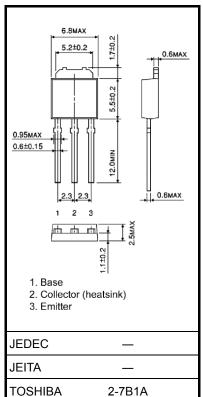
• Complementary to SD1220

Absolute Maximum Ratings (Ta = 25°C)

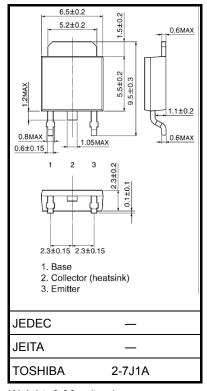
Characteristics		Symbol	Rating	Unit	
Collector-base voltage		V _{CBO}	-150	V	
Collector-emitter voltage		V _{CEO}	-150	V	
Emitter-base voltage		V _{EBO}	-6	V	
Collector current		I _C	-1.5	Α	
Base current		Ι _Β	-1.0	Α	
Collector power dissipation	Ta = 25°C	Pc	1.0	W	
	Tc = 25°C		10		
Junction temperature		Tj	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).



Weight: 0.36 g (typ.)



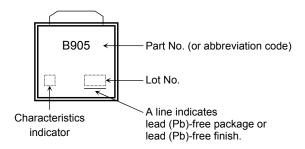
Weight: 0.36 g (typ.)

Electrical Characteristics (Ta = 25°C)

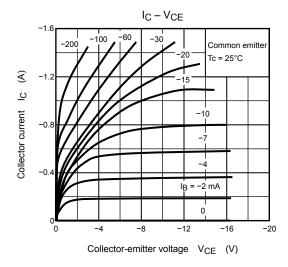
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I _{CBO}	$V_{CB} = -150 \text{ V}, I_E = 0$	_	_	-1.0	μΑ
Emitter cut-off current	I _{EBO}	$V_{EB} = -6 \text{ V}, I_{C} = 0$	_	_	-1.0	μΑ
Collector-emitter breakdown voltage	V (BR) CEO	$I_C = -10 \text{ mA}, I_B = 0$	-150	_	_	V
DC current gain	h _{FE} (Note)	V _{CE} = -5 V, I _C = -200 mA	60	_	320	
Collector-emitter saturation voltage	V _{CE} (sat)	$I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$	_	_	-1.5	V
Base-emitter voltage	V _{BE}	$V_{CE} = -5 \text{ V}, I_{C} = -5 \text{ mA}$	-0.5	_	-0.8	٧
Transition frequency	f _T	$V_{CE} = -5 \text{ V}, I_{C} = -200 \text{ mA}$	15	50	_	MHz
Collector output capacitance	C _{ob}	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$	_	_	35	pF

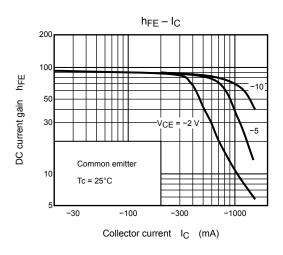
Note: hFE classification R: 60 to 120, O: 100 to 200, Y: 160 to 320

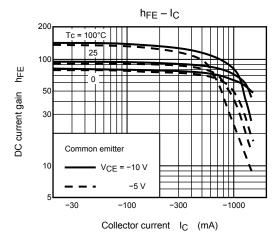
Marking

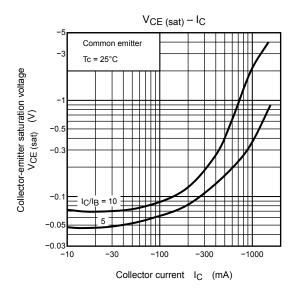


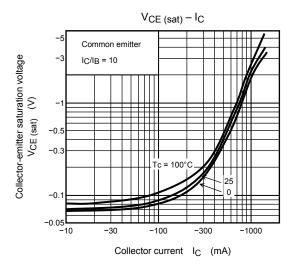
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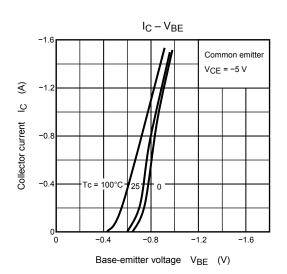


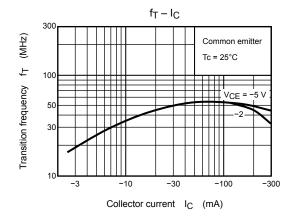


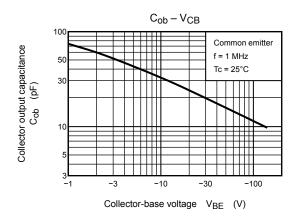


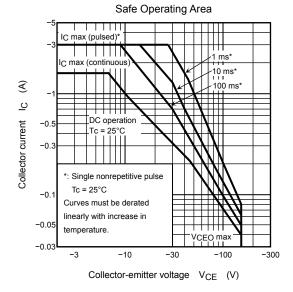


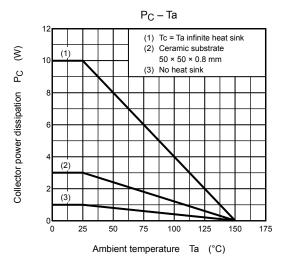












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RESTRICTIONS ON PRODUCT USE

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