Unit: mm

TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT process)

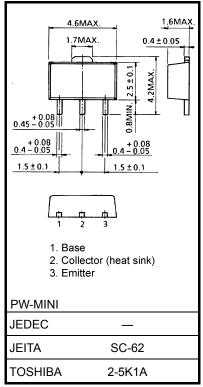
2SA1201

Voltage Amplifier Applications Power Amplifier Applications

- High voltage: VCEO = -120 V
- High transition frequency: fT = 120 MHz (typ.)
- · Small flat package
- PC = 1 to 2 W (mounted on a ceramic substrate)
- Complementary to 2SC2881

Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit	
Collector-base voltage	V_{CBO}	-120	V	
Collector-emitter voltage	V _{CEO}	-120	٧	
Emitter-base voltage	V _{EBO}	-5	٧	
Collector current	IC	-800	mA	
Base current	ΙΒ	-160	mA	
Collector power dissipation	PC	500	mW	
	P _C (Note 1)	1000		
Junction temperature	Tj	150	°C	
Storage temperature range	T _{stg}	-55 to 150	°C	



Weight: 0.05 g (typ.)

Note 1: Mounted on a ceramic substrate (250 $\text{mm}^2 \times 0.8 \text{ t}$)

Note 2: 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).

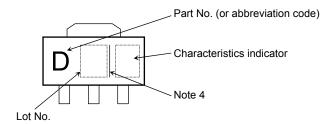


Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I _{CBO}	V _{CB} = -120 V, I _E = 0	_	_	-0.1	μΑ
Emitter cut-off current	I _{EBO}	$V_{EB} = -5 \text{ V}, I_{C} = 0$	_	_	-0.1	μΑ
Collector-emitter breakdown voltage	V (BR) CEO	I _C = -10 mA, I _B = 0	-120	_	_	V
Emitter-base breakdown voltage	V _(BR) EBO	$I_E = -1 \text{ mA}, I_C = 0$	-5	_	_	V
DC current gain	h _{FE} (Note 3)	V _{CE} = -5 V, I _C = -100 mA	80	_	240	
Collector-emitter saturation voltage	V _{CE} (sat)	I _C = -500 mA, I _B = -50 mA	_	_	-1.0	V
Base-emitter voltage	V _{BE}	V _{CE} = -5 V, I _C = -500 mA	_	_	-1.0	V
Transition frequency	f _T	V _{CE} = -5 V, I _C = -100 mA	_	120	_	MHz
Collector output capacitance	C _{ob}	V _{CB} = -10 V, I _E = 0, f = 1 MHz	_	_	30	pF

Note 3: hFE classification O: 80 to 160, Y: 120 to 240

Marking

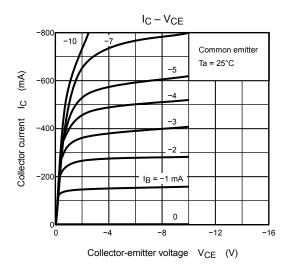


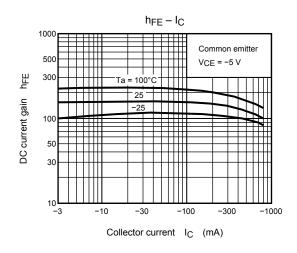
Note 4: A line beside a Lot No. identifies the indication of product Labels.

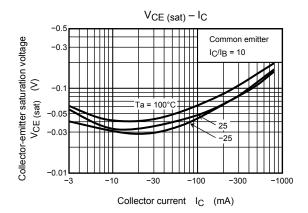
Without a line: [[Pb]]/INCLUDES > MCV

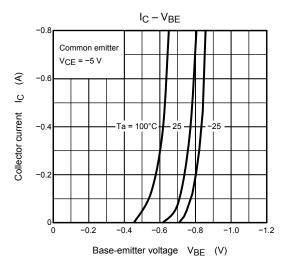
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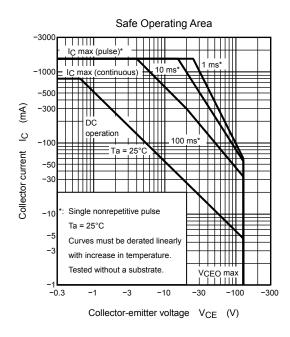
Please contact your TOSHIBA sales representative for details as to environmental matters such as the RoHS compatibility of Product. The RoHS is the Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

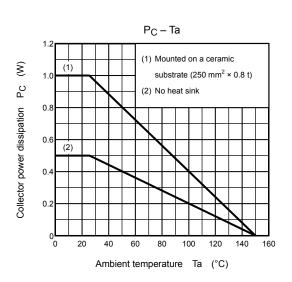












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