

TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

2SC2881

Voltage Amplifier Applications

Power Amplifier Applications

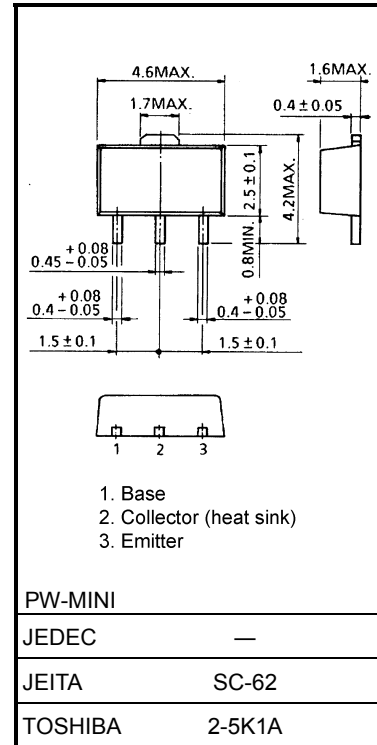
- High voltage: $V_{CE0} = 120\text{ V}$
- High transition frequency: $f_T = 120\text{ MHz (typ.)}$
- Small flat package
- $P_C = 1.0\text{ to }2.0\text{ W}$ (mounted on ceramic substrate)
- Complementary to 2SA1201

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

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	120	V
Collector-emitter voltage	V_{CE0}	120	V
Emitter-base voltage	V_{EB0}	5	V
Collector current	I_C	800	mA
Base current	I_B	160	mA
Collector power dissipation	P_C	500	mW
	P_C (Note 1)	1000	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to 150	$^\circ\text{C}$

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

Unit: mm



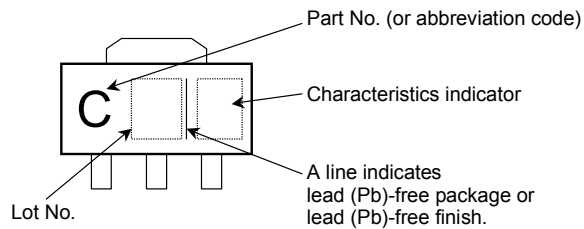
Weight: 0.05 g (typ.)

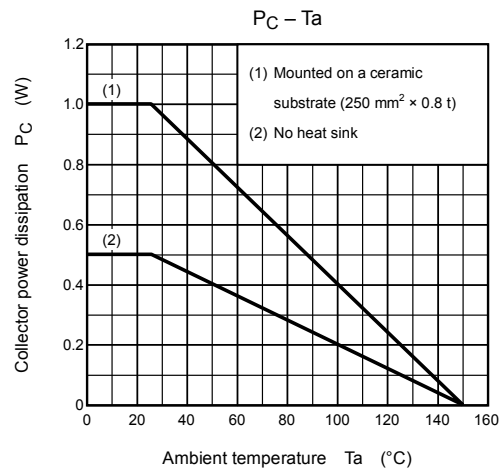
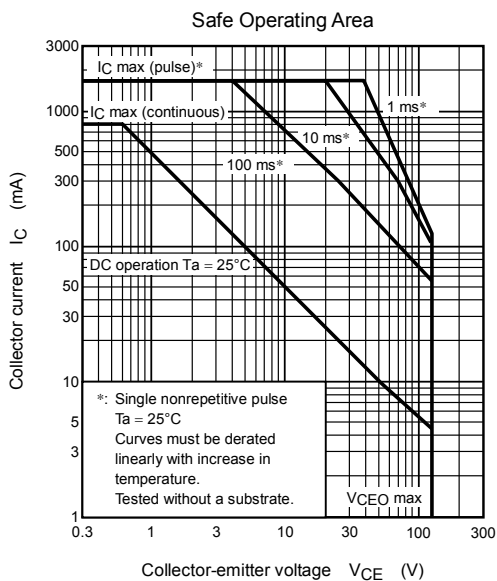
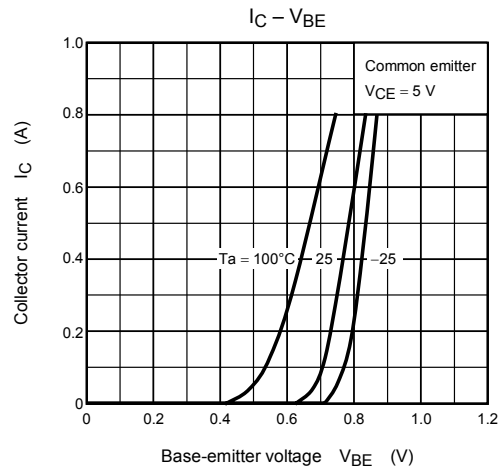
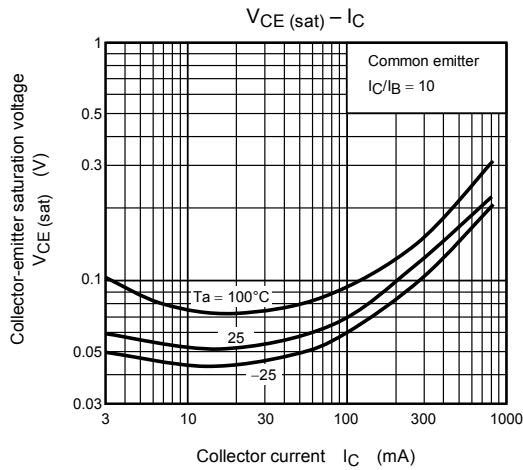
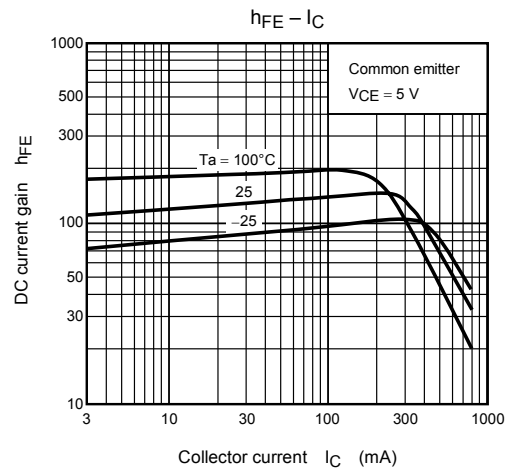
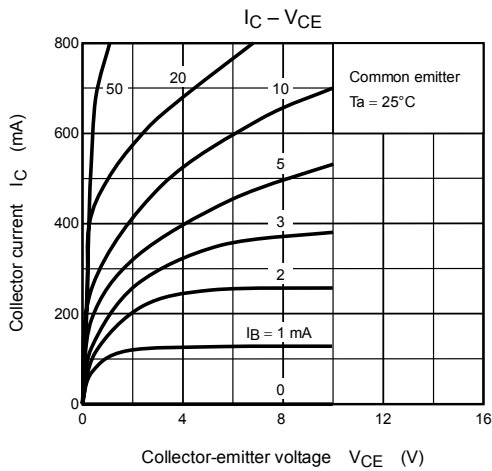
Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = 120\text{ V}, I_E = 0$	—	—	0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{ V}, I_C = 0$	—	—	0.1	μA
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10\text{ mA}, I_B = 0$	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 2)	$V_{CE} = 5\text{ V}, I_C = 100\text{ mA}$	80	—	240	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500\text{ mA}, I_B = 50\text{ mA}$	—	—	1.0	V
Base-emitter voltage	V_{BE}	$V_{CE} = 5\text{ V}, I_C = 500\text{ mA}$	—	—	1.0	V
Transition frequency	f_T	$V_{CE} = 5\text{ V}, I_C = 100\text{ mA}$	—	120	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	—	30	pF

Note 2: h_{FE} classification O: 80 to 160, Y: 120 to 240

Marking





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