

TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT process)

# 2SA1225

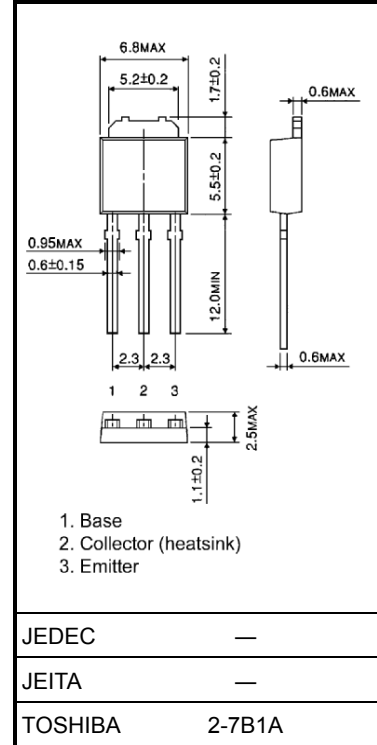
Power Amplifier Applications  
 Driver Stage Amplifier Applications

- High transition frequency:  $f_T = 100 \text{ MHz (typ.)}$
- Complementary to 2SC2983

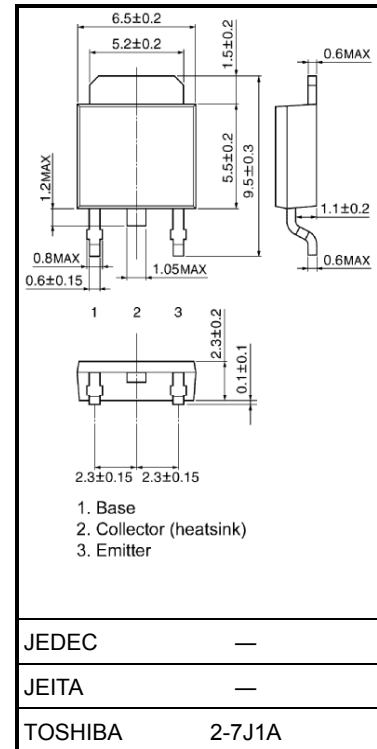
**Maximum Ratings (Ta = 25°C)**

Characteristics	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	-160	V
Collector-emitter voltage	$V_{CEO}$	-160	V
Emitter-base voltage	$V_{EBO}$	-5	V
Collector current	$I_C$	-1.5	A
Base current	$I_B$	-0.3	A
Collector power dissipation	$T_a = 25^\circ\text{C}$	1.0	W
	$T_c = 25^\circ\text{C}$	15	
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	-55 to 150	°C

Unit: mm



Weight: 0.36 g (typ.)



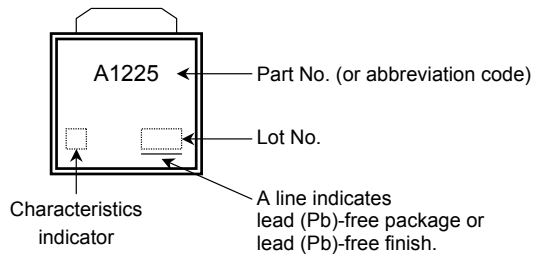
Weight: 0.36 g (typ.)

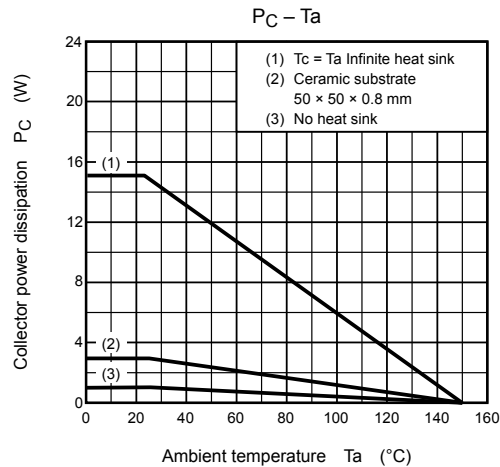
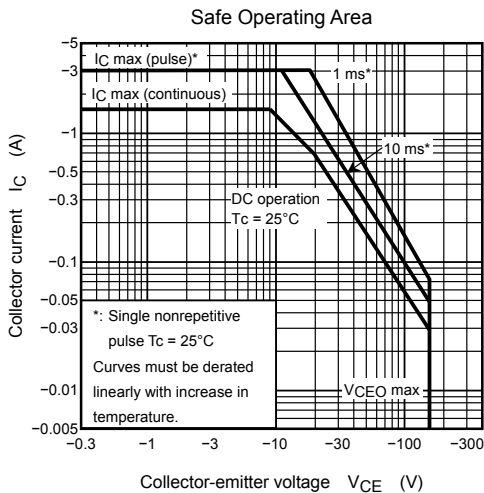
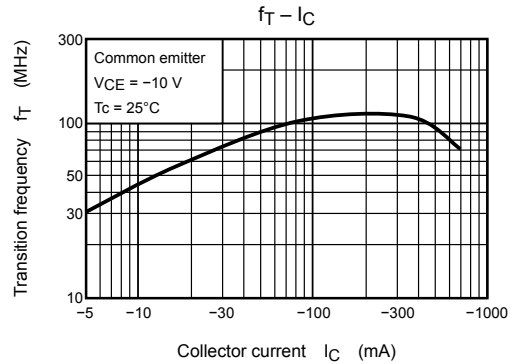
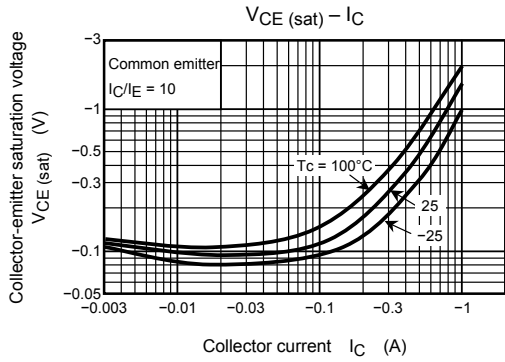
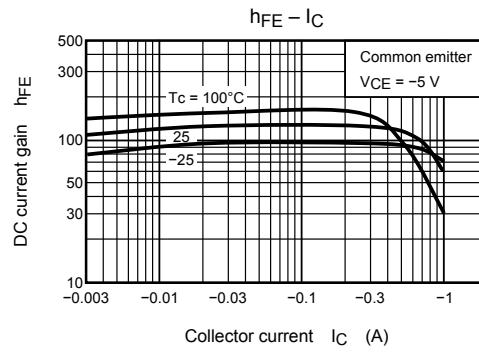
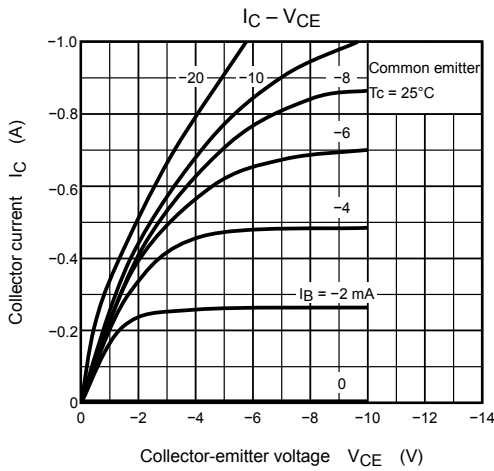
## Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	$I_{CBO}$	$V_{CB} = -160\text{ V}, I_E = 0$	—	—	-1.0	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5\text{ V}, I_C = 0$	—	—	-1.0	$\mu\text{A}$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10\text{ mA}, I_B = 0$	-160	—	—	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -1\text{ mA}, I_C = 0$	-5	—	—	V
DC current gain	$h_{FE}$ (Note)	$V_{CE} = -5\text{ V}, I_C = -100\text{ mA}$	70	—	240	
Collector emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{ mA}, I_B = -50\text{ mA}$	—	—	-1.5	V
Base-emitter voltage	$V_{BE}$	$V_{CE} = -5\text{ V}, I_C = -500\text{ mA}$	—	—	-1.0	V
Transition frequency	$f_T$	$V_{CE} = -10\text{ V}, I_C = -100\text{ mA}$	—	100	—	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	30	—	pF

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

## Marking





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