TOSHIBA

TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT Process)

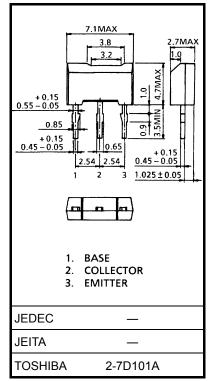
2SA1425

Power Amplifier Applications Driver-Stage Amplifier Applications

• Complementary to 2SC3665.

Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V _{CBO}	-120	V
Collector-emitter voltage	V _{CEO}	-120	V
Emitter-base voltage	V _{EBO}	-5	V
Collector current	Ι _C	-800	mA
Base current	Ι _Β	-80	mA
Collector power dissipation	PC	1000	mW
Junction temperature	Тј	150	°C
Storage temperature range	T _{stg}	-55 to 150	°C



Weight: 0.2 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).

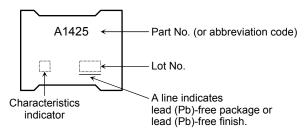
Unit: mm

Electrical Characteristics (Ta = 25°C)

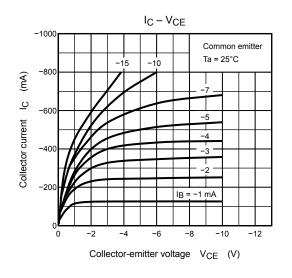
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I _{CBO}	$V_{CB} = -120 \text{ V}, I_E = 0$	_	_	-100	nA
Emitter cut-off current	I _{EBO}	V _{EB} = -5 V, I _C = 0	_	_	-100	nA
Collector-emitter breakdown voltage	V (BR) CEO	I _C = -10 mA, I _B = 0	-120	_	_	V
Emitter-base breakdown voltage	V (BR) EBO	$I_{\rm E} = -1 {\rm mA}, I_{\rm C} = 0$	-5	_	_	V
DC current gain	h _{FE} (Note)	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	fT	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	_	_	40	pF

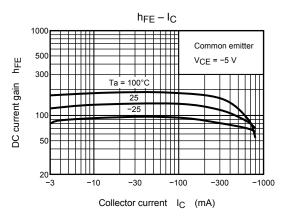
Note: hFE classification O: 80 to 160, Y: 120 to 240

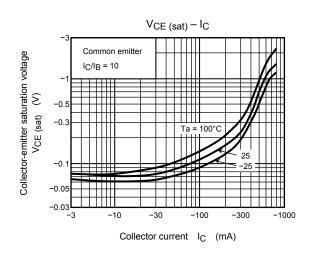
Marking

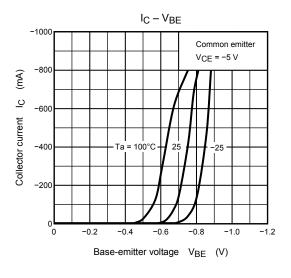


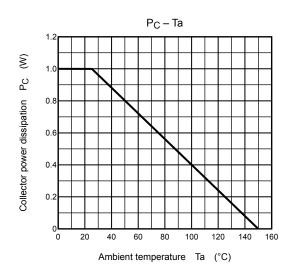
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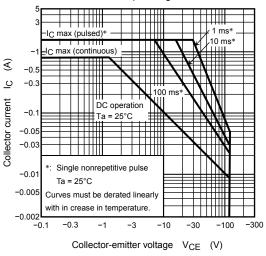












RESTRICTIONS ON PRODUCT USE

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- TOSHIBA is continually working to improve the quality and reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to comply with the standards of safety in making a safe design for the entire system, and to avoid situations in which a malfunction or failure of such TOSHIBA products could cause loss of human life, bodily injury or damage to property.
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