

# 2SD1527

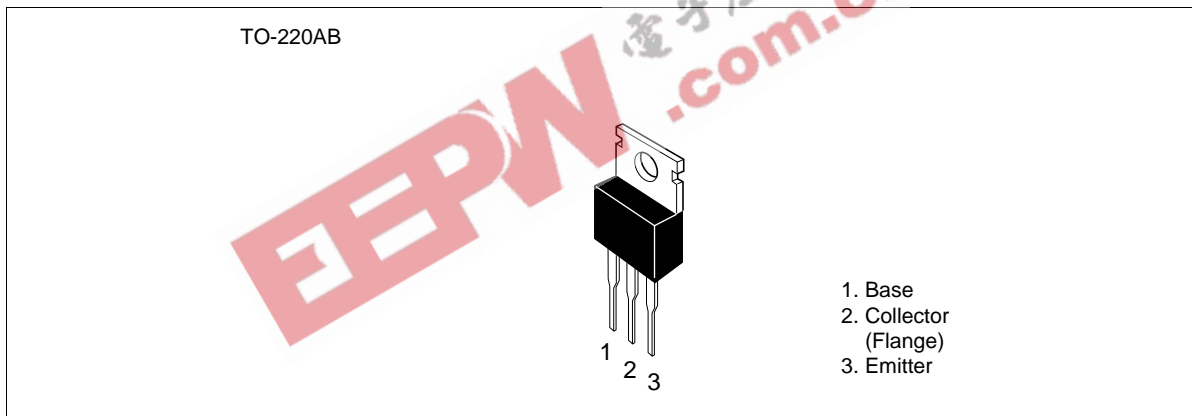
Silicon NPN Triple Diffused

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## Application

High voltage power amplifier

## Outline



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

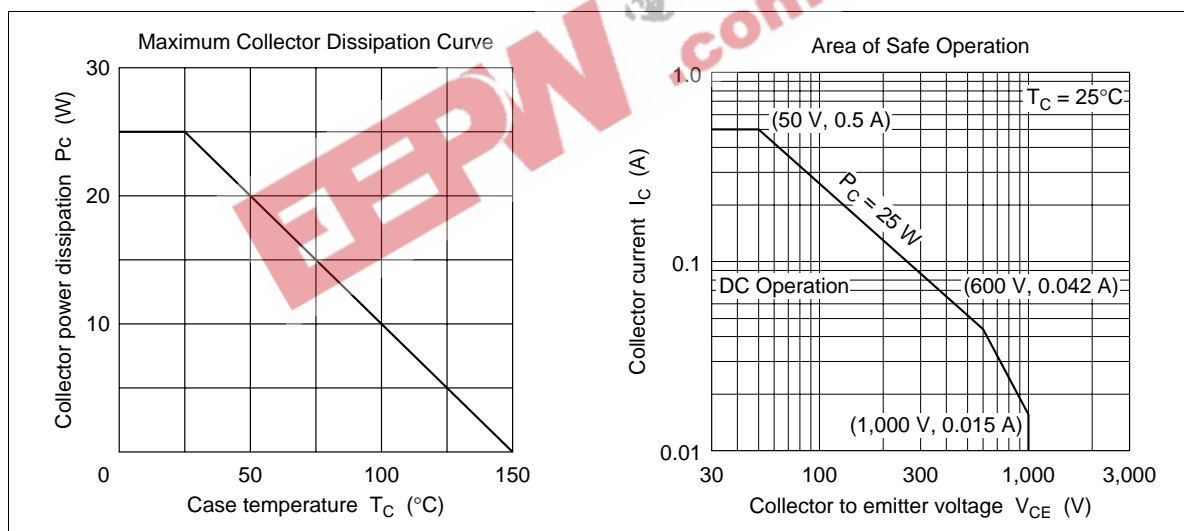
Item	Symbol	Rating	Unit
Collector to base voltage	$V_{\text{CBO}}$	1000	V
Collector to emitter voltage	$V_{\text{CEO}}$	1000	V
Emitter to base voltage	$V_{\text{EBO}}$	5	V
Collector current	$I_{\text{C}}$	0.5	A
Collector power dissipation	$P_{\text{C}}$	1.8	W
	$P_{\text{C}}^{*1}$	25	W
Junction temperature	$T_{\text{j}}$	150	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-55 to +150	$^\circ\text{C}$

Note: 1. Value at  $T_{\text{c}} = 25^\circ\text{C}$ .

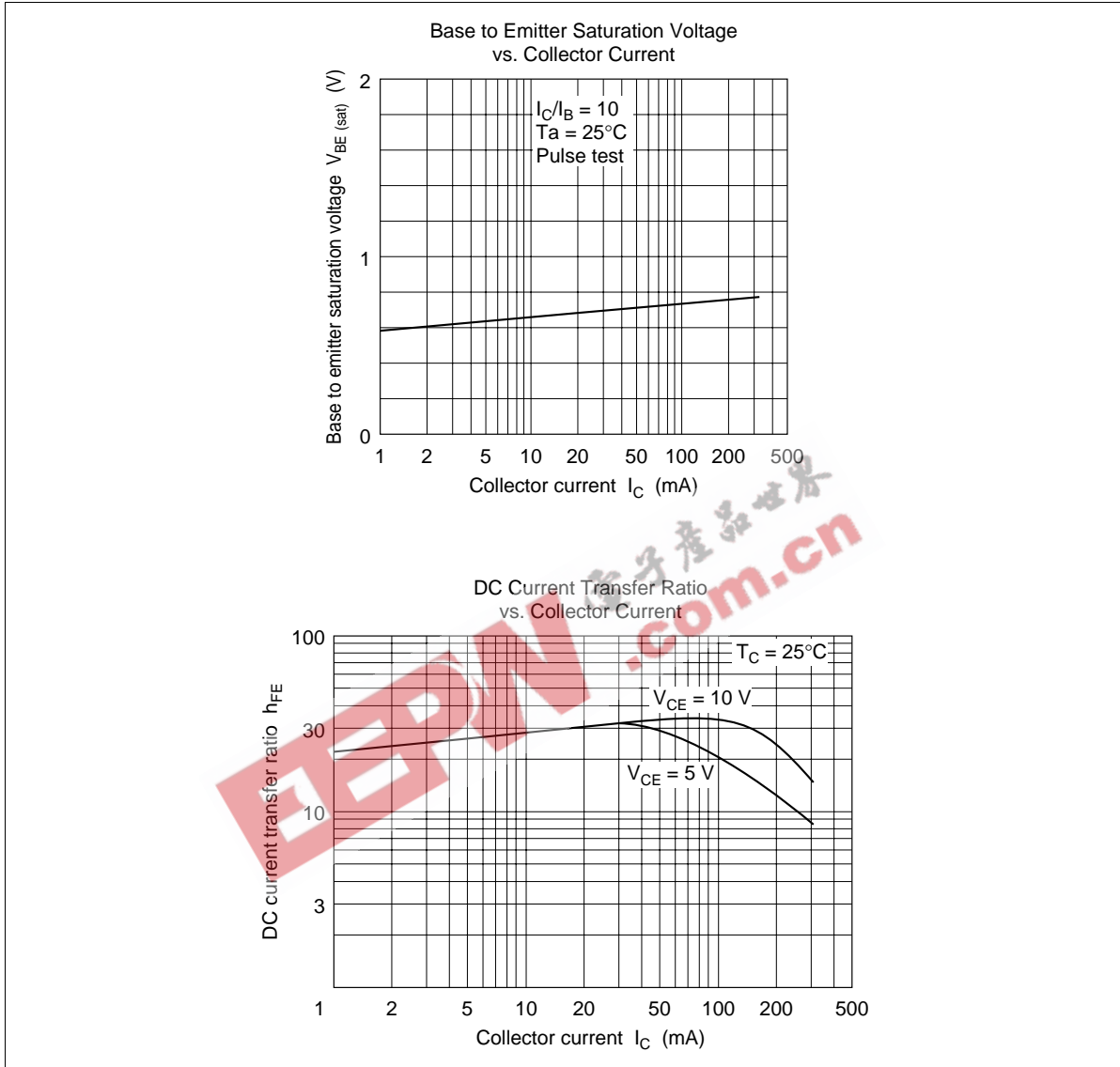
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### Electrical Characteristics (T<sub>a</sub> = 25°C)

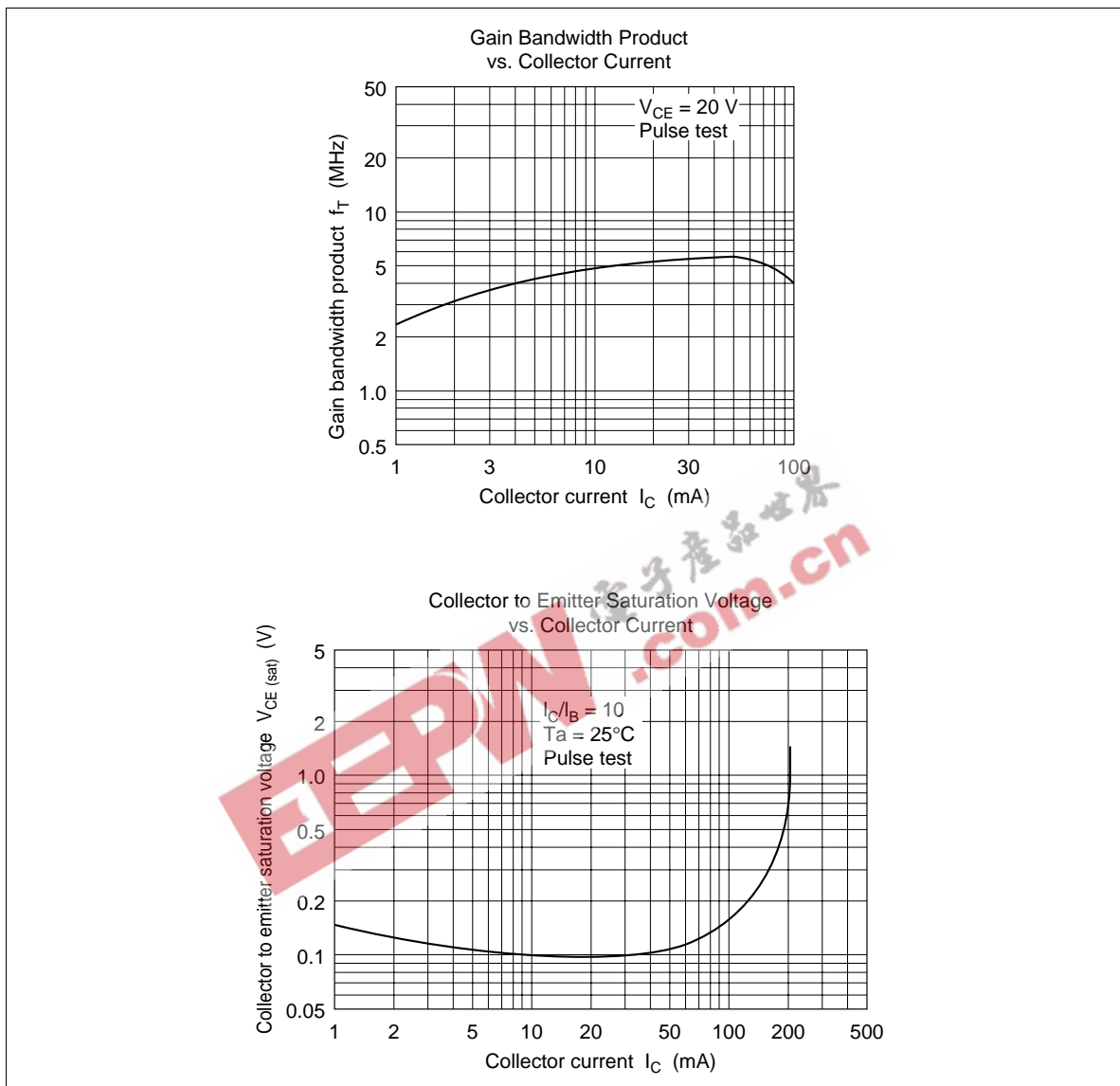
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	V <sub>(BR)CEO</sub>	1000	—	—	V	I <sub>C</sub> = 1 mA, R <sub>BE</sub> = ∞
Emitter to base breakdown voltage	V <sub>(BR)EBO</sub>	5	—	—	V	I <sub>E</sub> = 1 mA, I <sub>C</sub> = 0
Collector cutoff current	I <sub>CBO</sub>	—	—	10	μA	V <sub>CB</sub> = 800 V, I <sub>E</sub> = 0
DC current transfer ratio	h <sub>FE1</sub>	10	—	—		V <sub>CE</sub> = 5 V, I <sub>C</sub> = 10 mA
	h <sub>FE2</sub>	10	—	—		V <sub>CE</sub> = 5 V, I <sub>C</sub> = 100 mA
Base to emitter voltage	V <sub>BE</sub>	—	—	1.2	V	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 100 mA
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	—	—	5	V	I <sub>C</sub> = 300 mA, I <sub>B</sub> = 60 mA
Gain bandwidth product	f <sub>T</sub>	—	5	—	MHz	V <sub>CE</sub> = 20 V, I <sub>C</sub> = 50 mA
Collector output capacitance	Cob	—	5	—	pF	V <sub>CB</sub> = 100 V, I <sub>E</sub> = 0, f = 1 MHz



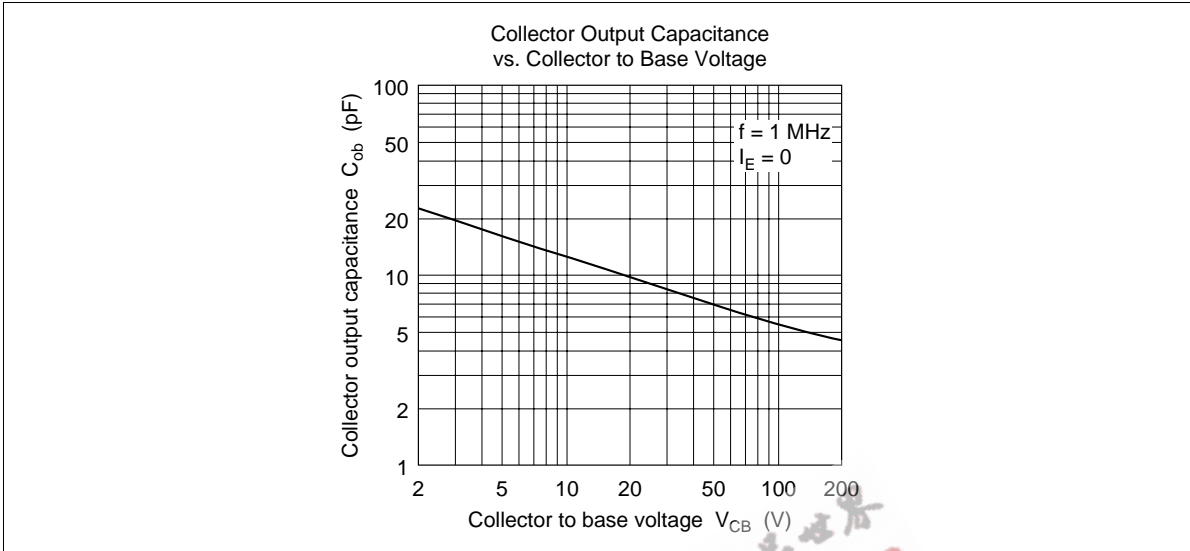
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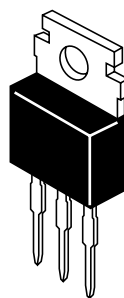
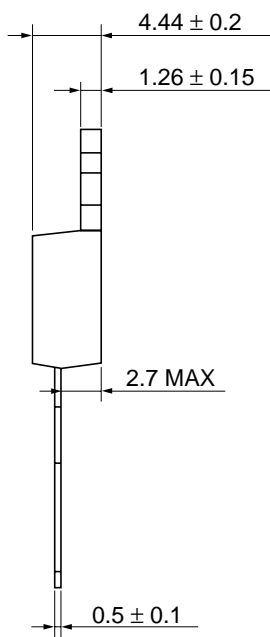
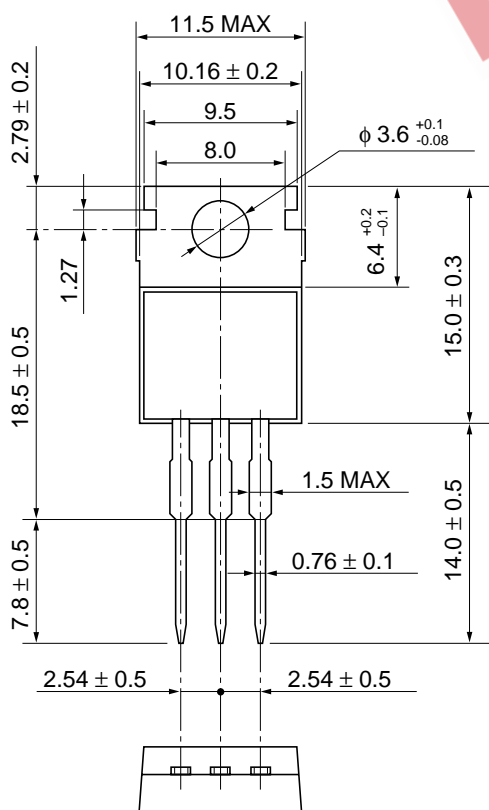


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Unit: mm



Hitachi Code	TO-220AB
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	1.8 g

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