

2SD1527

Silicon NPN Triple Diffused

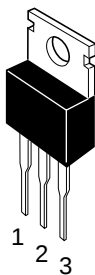
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Application

High voltage power amplifier

Outline

TO-220AB



- 1. Base
- 2. Collector (Flange)
- 3. Emitter

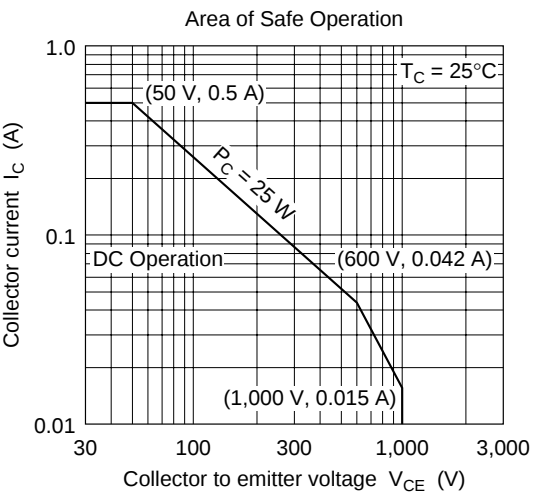
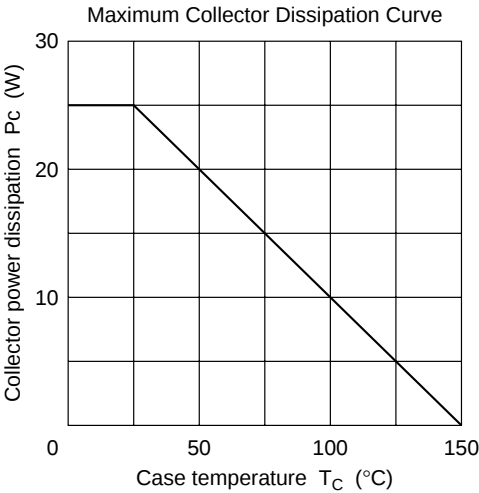
Absolute Maximum Ratings (Ta = 25°C)

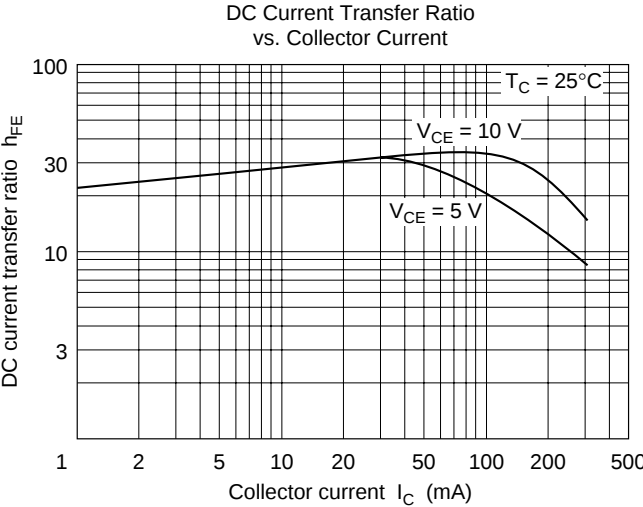
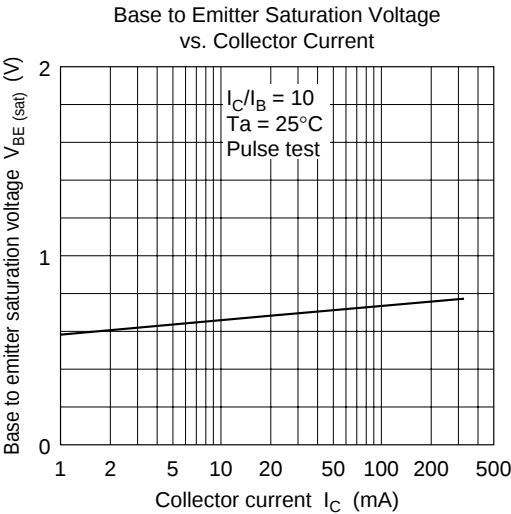
Item	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	1000	V
Collector to emitter voltage	V_{CEO}	1000	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_C	0.5	A
Collector power dissipation	P_C	1.8	W
	P_C^{*1}	25	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

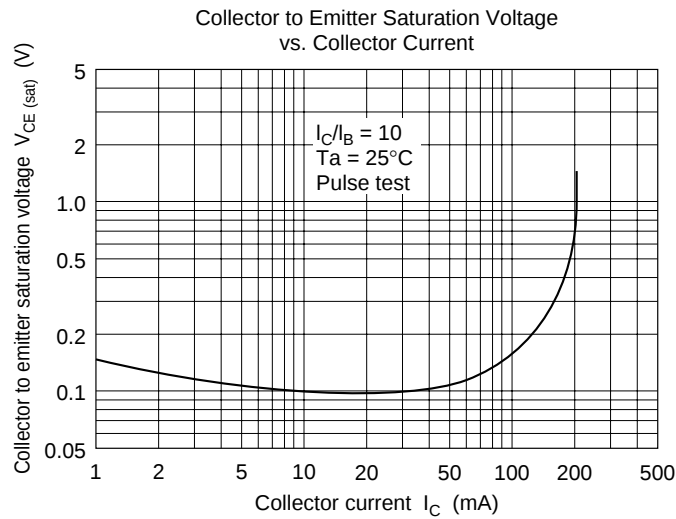
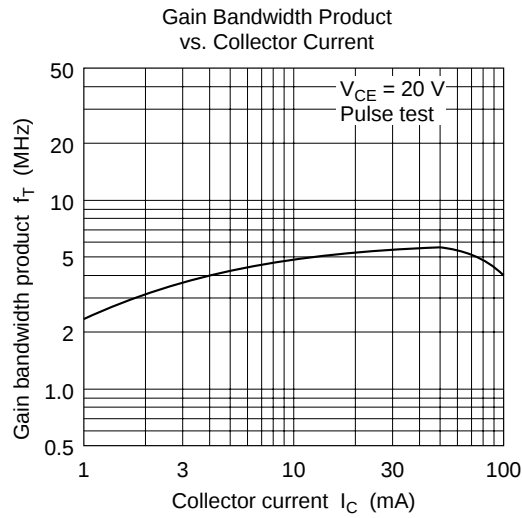
Note: 1. Value at $T_c = 25^{\circ}C$.

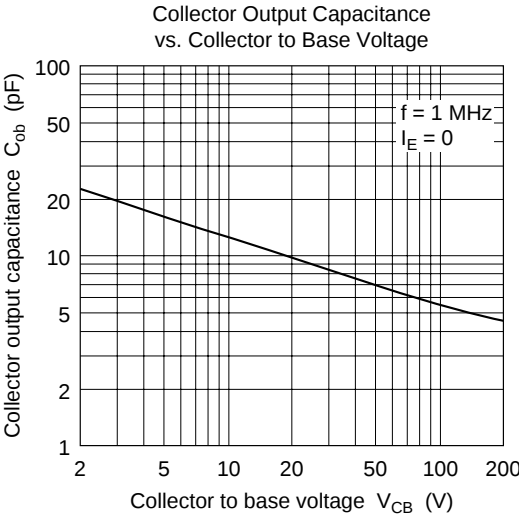
Electrical Characteristics (Ta = 25°C)

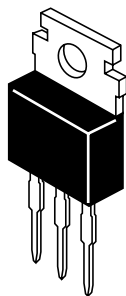
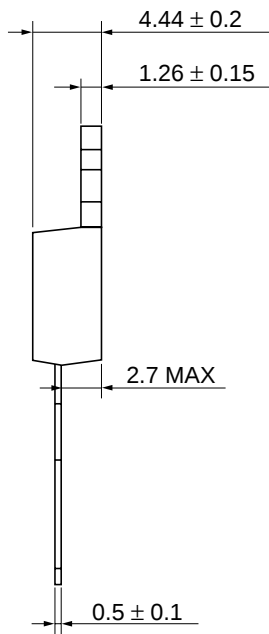
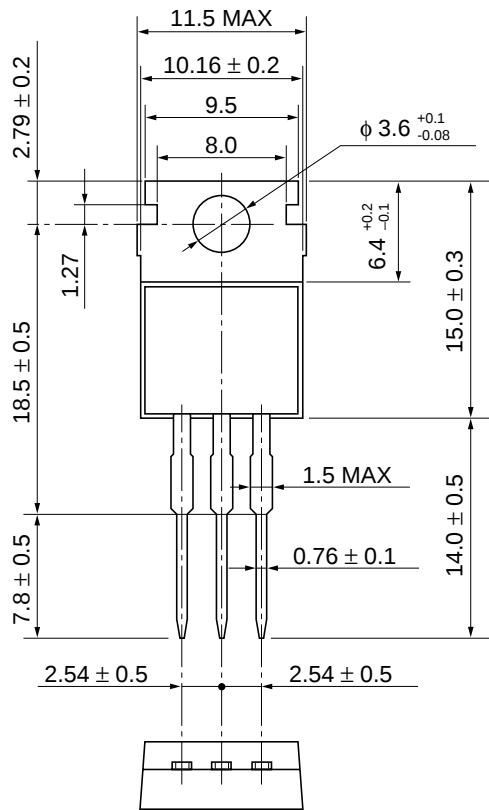
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	1000	—	—	V	$I_C = 1\text{ mA}$, $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	$I_E = 1\text{ mA}$, $I_C = 0$
Collector cutoff current	I_{CBO}	—	—	10	μA	$V_{CB} = 800\text{ V}$, $I_E = 0$
DC current transfer ratio	h_{FE1}	10	—	—		$V_{CE} = 5\text{ V}$, $I_C = 10\text{ mA}$
	h_{FE2}	10	—	—		$V_{CE} = 5\text{ V}$, $I_C = 100\text{ mA}$
Base to emitter voltage	V_{BE}	—	—	1.2	V	$V_{CE} = 5\text{ V}$, $I_C = 100\text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	5	V	$I_C = 300\text{ mA}$, $I_B = 60\text{ mA}$
Gain bandwidth product	f_T	—	5	—	MHz	$V_{CE} = 20\text{ V}$, $I_C = 50\text{ mA}$
Collector output capacitance	C_{ob}	—	5	—	pF	$V_{CB} = 100\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$











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

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