

# 2SC2898

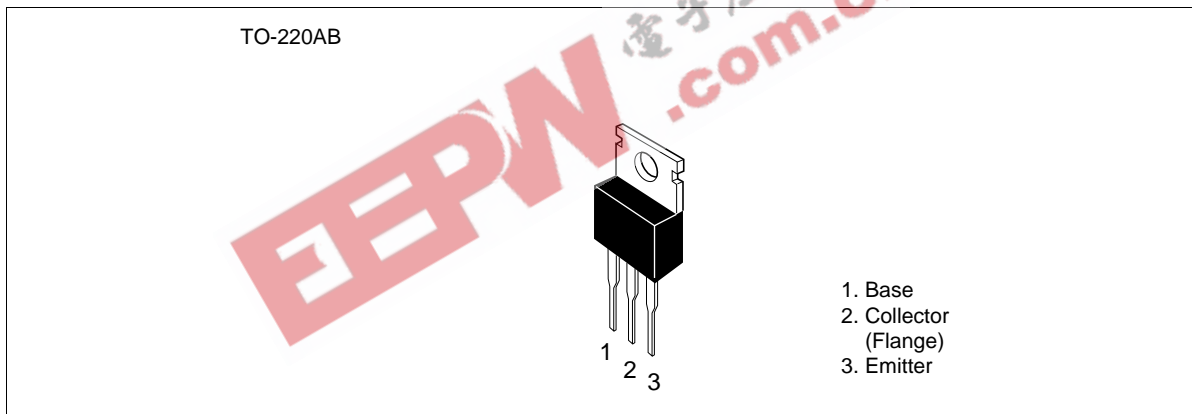
Silicon NPN Triple Diffused

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## Application

High voltage, high speed and high power switching

## Outline



## Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	500	V
Collector to emitter voltage	$V_{CEO}$	400	V
Emitter to base voltage	$V_{EBO}$	7	V
Collector current	$I_C$	8	A
Collector peak current	$I_{C(peak)}$	16	A
Base current	$I_B$	4	A
Collector power dissipation	$P_C^{*1}$	50	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

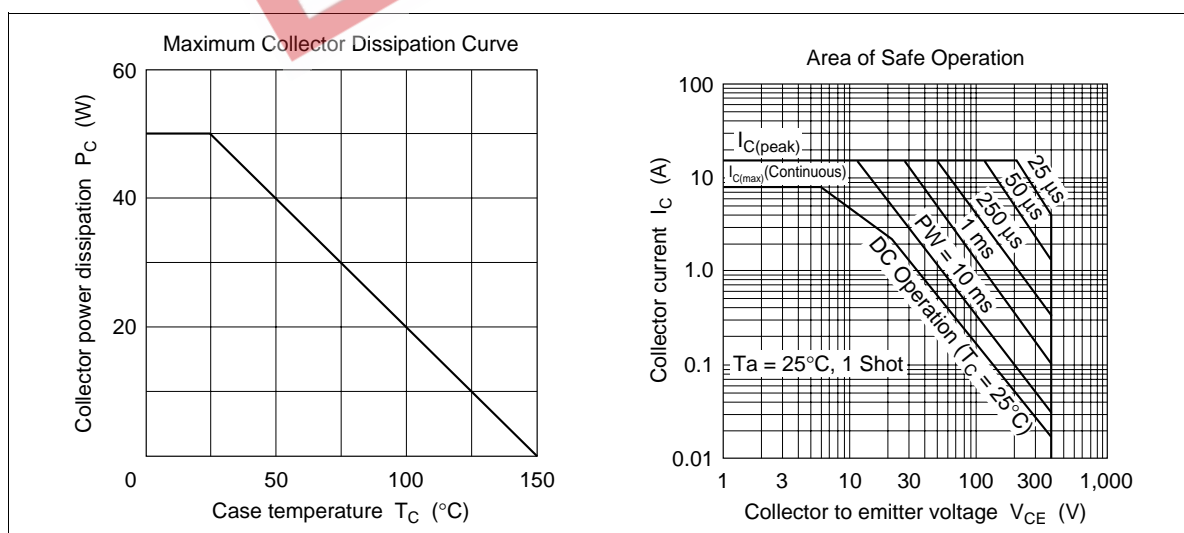
Note: 1. Value at  $T_c = 25^\circ\text{C}$ .

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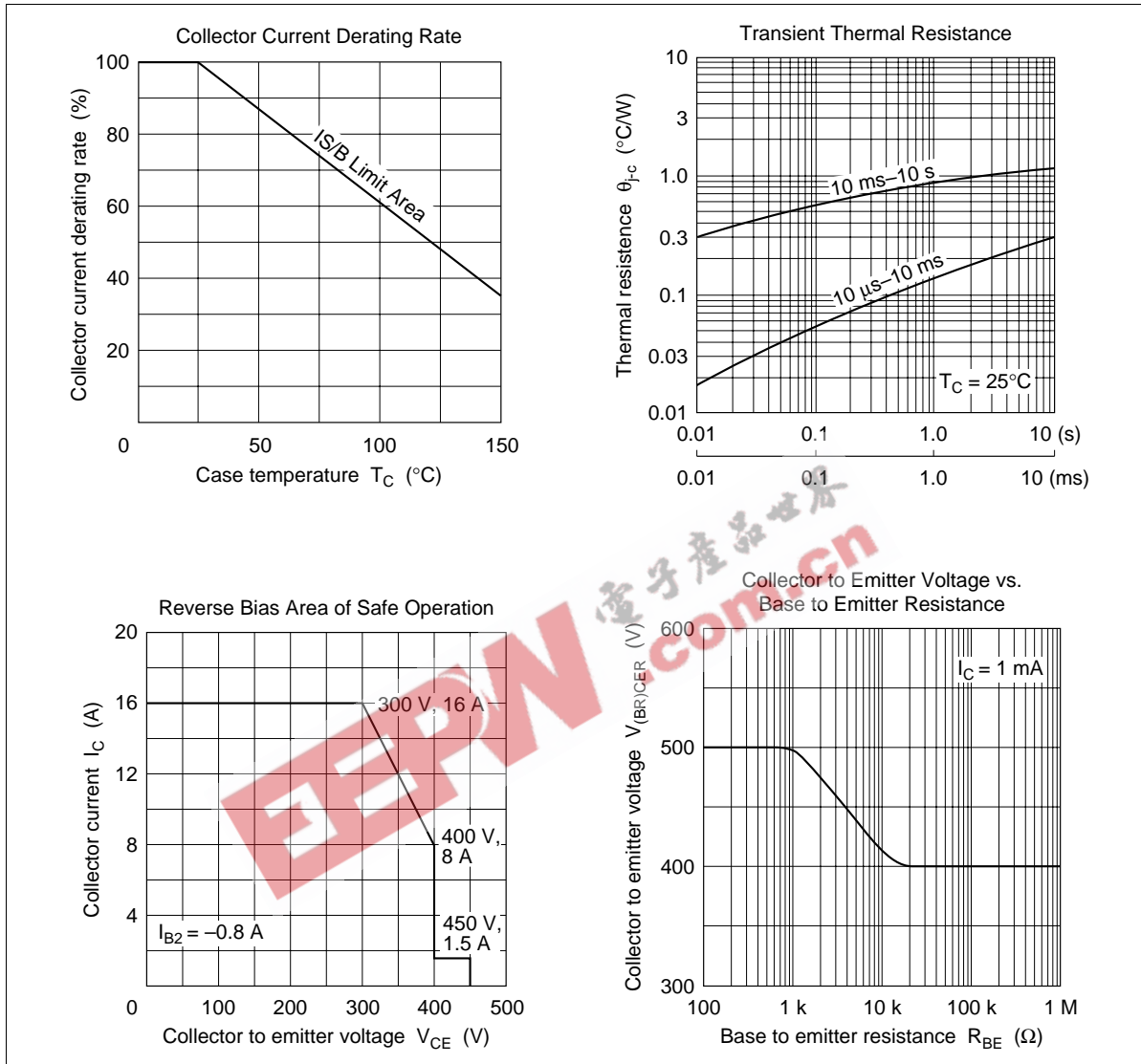
### Electrical Characteristics (T<sub>a</sub> = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter sustain voltage	V <sub>CEO(sus)</sub>	400	—	—	V	I <sub>C</sub> = 0.2 A, R <sub>BE</sub> = ∞, L = 100 mH
Collector to emitter sustain voltage	V <sub>CEX(sus)</sub>	400	—	—	V	I <sub>C</sub> = 8 A, I <sub>B1</sub> = 1.6 A, I <sub>B2</sub> = -0.8 A, V <sub>BE</sub> = -5 V, L = 180 μH, Clamped
Emitter to base breakdown voltage	V <sub>(BR)EBO</sub>	7	—	—	V	I <sub>E</sub> = 10 mA, I <sub>C</sub> = 0
Collector cutoff current	I <sub>CBO</sub>	—	—	50	μA	V <sub>CB</sub> = 400 V, I <sub>E</sub> = 0
	I <sub>CEO</sub>	—	—	50	μA	V <sub>CE</sub> = 350 V, R <sub>BE</sub> = ∞
DC current transfer ratio	h <sub>FE1</sub>	15	—	—		V <sub>CE</sub> = 5 V, I <sub>C</sub> = 4 A* <sup>1</sup>
	h <sub>FE2</sub>	7	—	—		V <sub>CE</sub> = 5 V, I <sub>C</sub> = 8 A* <sup>1</sup>
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	—	—	1.0	V	I <sub>C</sub> = 4 A, I <sub>B</sub> = 0.8 A* <sup>1</sup>
Base to emitter saturation voltage	V <sub>BE(sat)</sub>	—	—	1.5	V	
Turn on time	t <sub>on</sub>	—	—	0.8	μs	I <sub>C</sub> = 8 A, I <sub>B1</sub> = -I <sub>B2</sub> = 1.6 A,
Storage time	t <sub>stg</sub>	—	—	2.0	μs	V <sub>CC</sub> ≅ 150 V
Fall time	t <sub>f</sub>	—	—	0.8	μs	

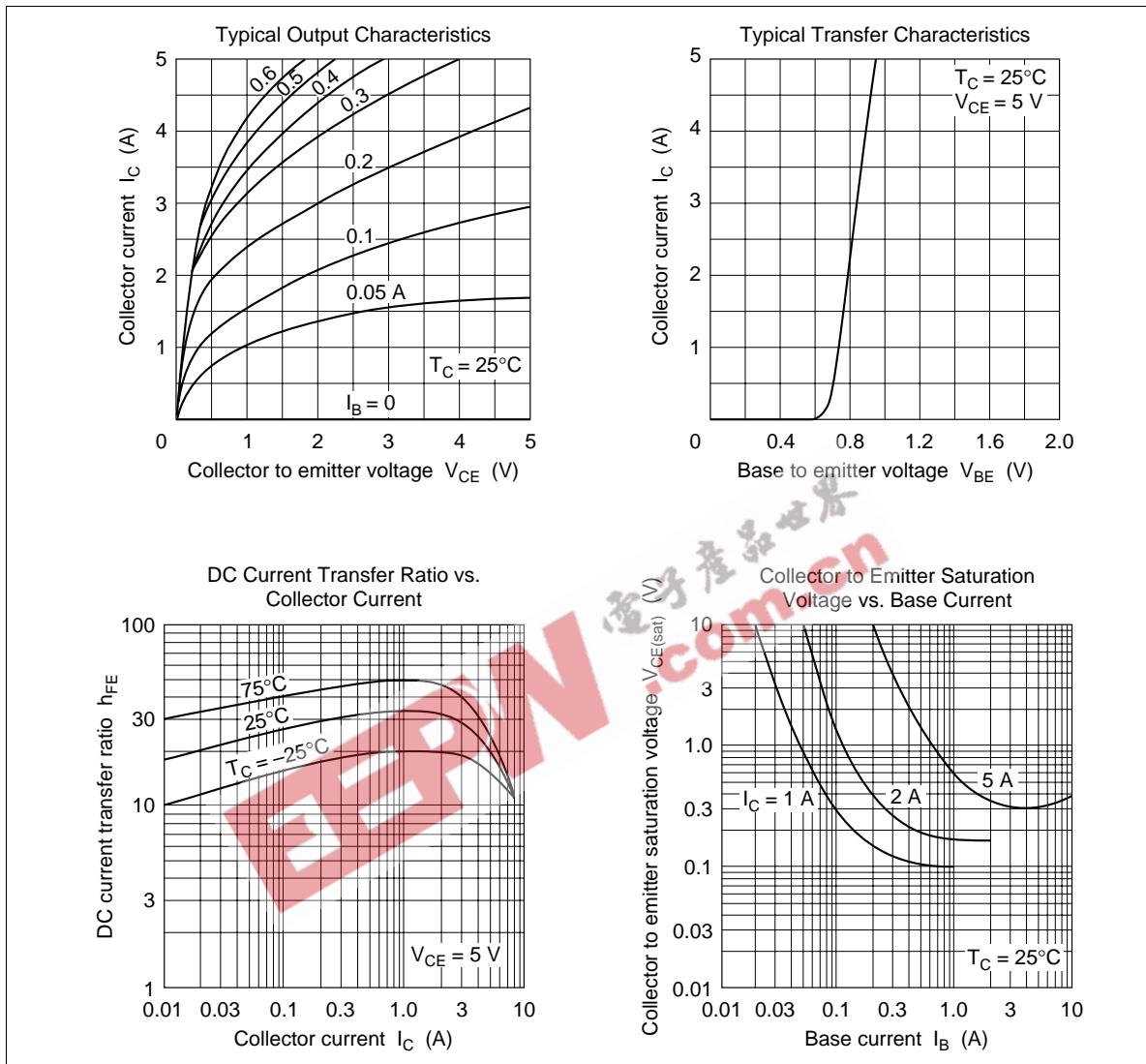
Note: 1. Pulse test

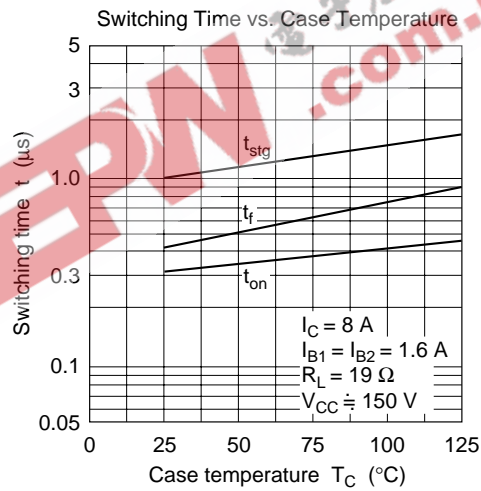
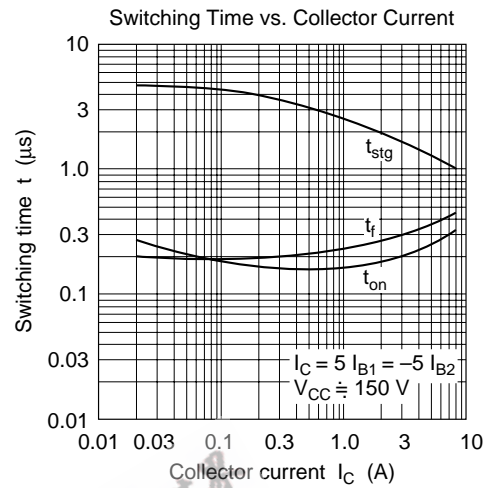
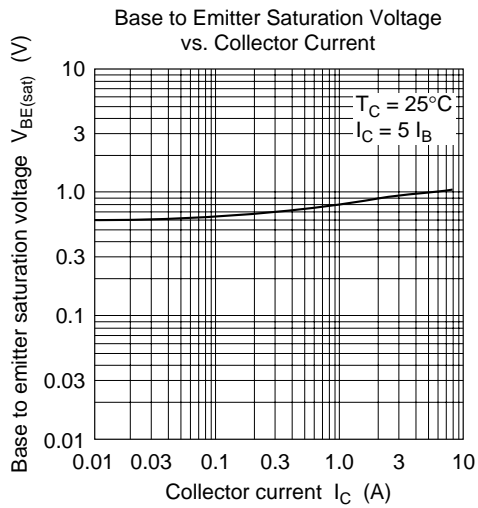


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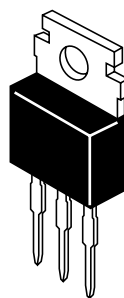
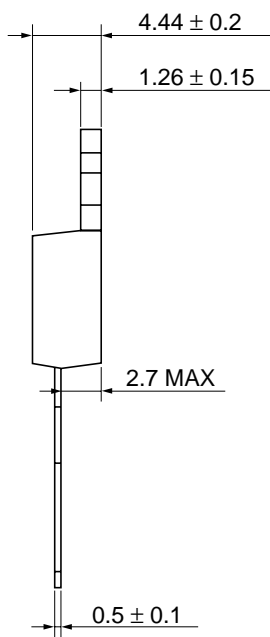
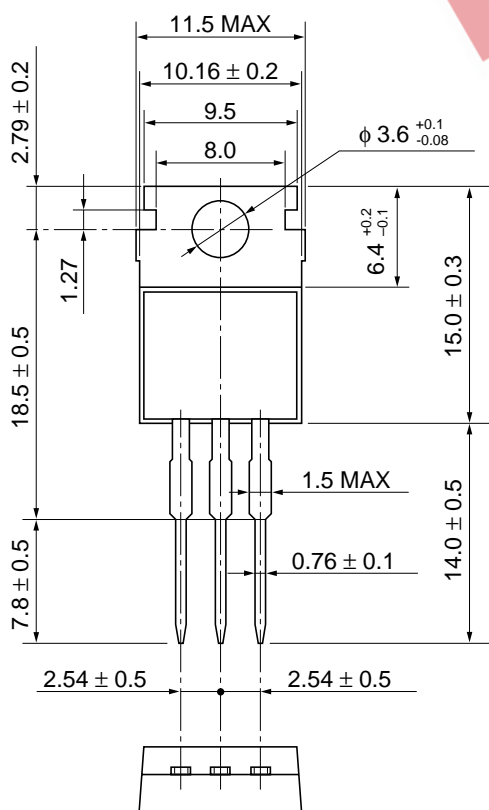
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Unit: mm



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

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