

2SB907

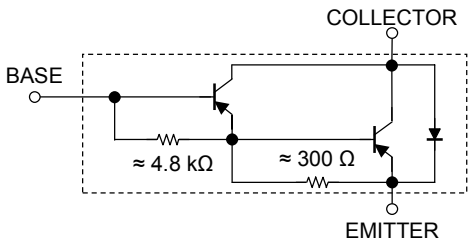
Switching Applications
Hammer Drive, Pulse Motor Drive Applications
Power Amplifier Applications

- High DC current gain: $h_{FE} (1) = 2000 \text{ (min)}$ ($V_{CE} = -2 \text{ V}$, $I_C = -1 \text{ A}$)
- Low saturation voltage: $V_{CE} (\text{sat}) = -1.5 \text{ V (max)}$ ($I_C = -2 \text{ A}$)
- Complementary to 2SD1222.

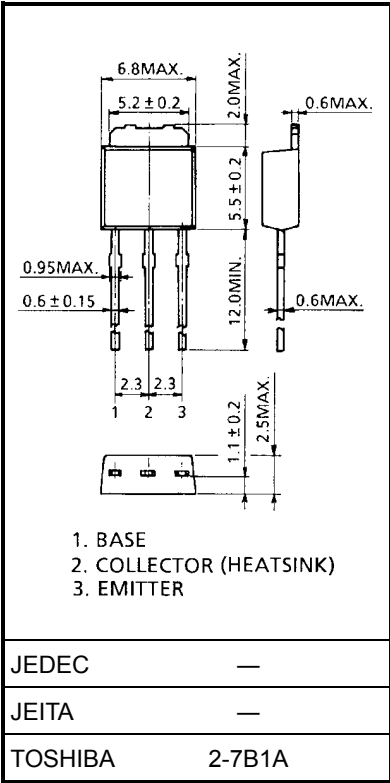
Maximum Ratings (Ta = 25°C)

Characteristics		Symbol	Rating	Unit
Collector-base voltage		V_{CBO}	-60	V
Collector-emitter voltage		V_{CEO}	-40	V
Emitter-base voltage		V_{EBO}	-5	V
Collector current		I_C	-3	A
Base current		I_B	-0.3	A
Collector power dissipation	Ta = 25°C	P_C	1.0	W
	Tc = 25°C		15	
Junction temperature		T_j	150	°C
Storage temperature range		T_{stg}	-55 to 150	°C

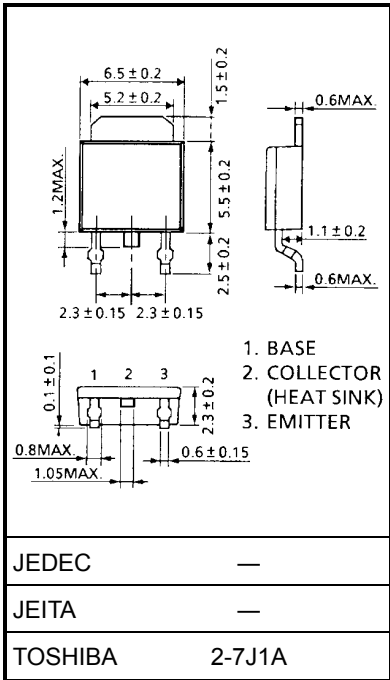
Equivalent Circuit



Unit: mm

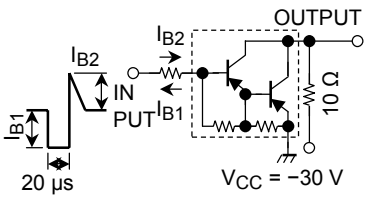


Weight: 0.36 g (typ.)

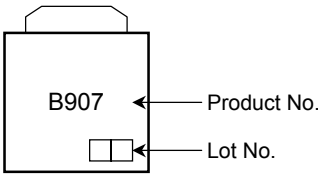


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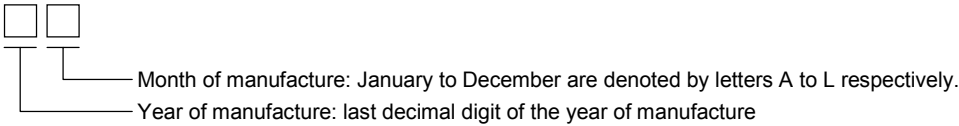
Electrical Characteristics (Ta = 25°C)

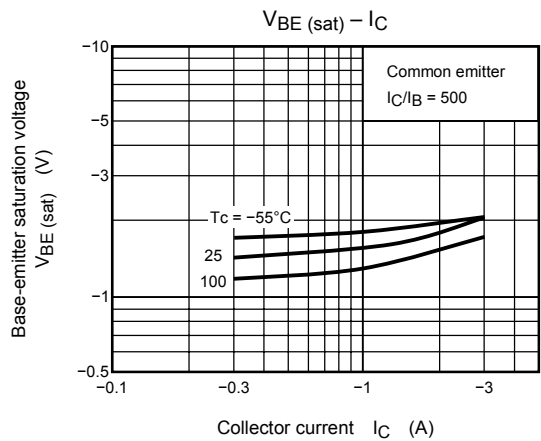
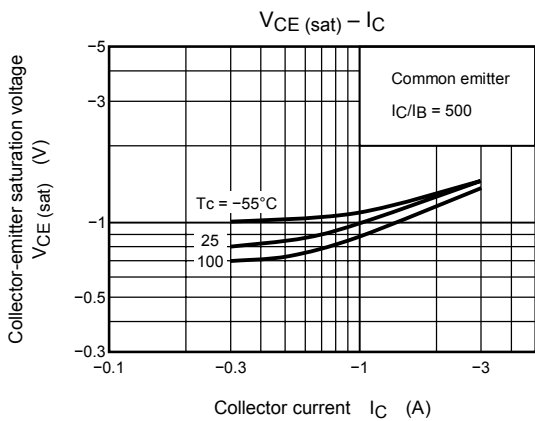
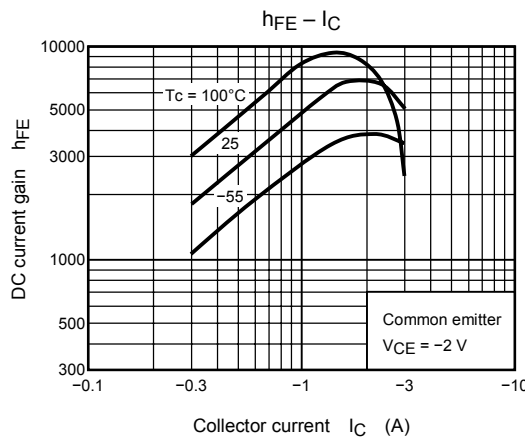
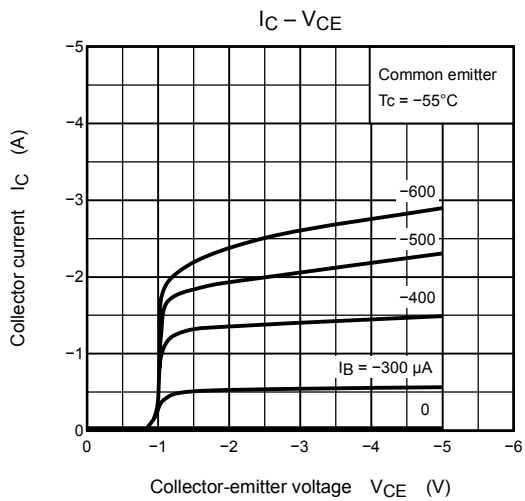
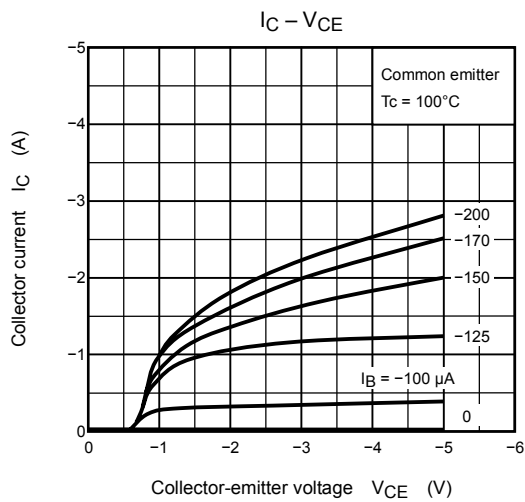
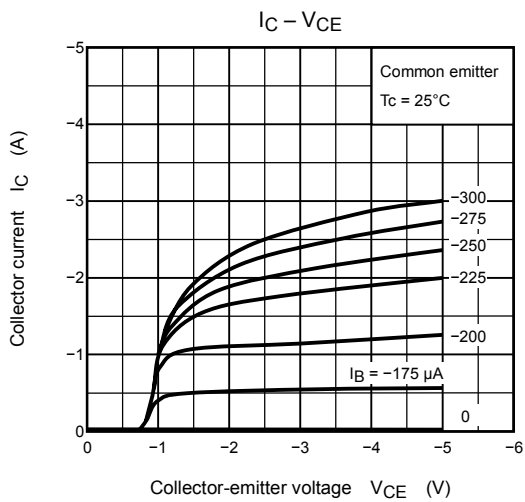
Characteristics		Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current		ICBO	V _{CB} = -60 V, I _E = 0	—	—	-20	μA
Emitter cut-off current		IEBO	V _{EB} = -5 V, I _C = 0	—	—	-2.5	mA
Collector-emitter breakdown voltage		V _(BR) CEO	I _C = -25 mA, I _B = 0	-40	—	—	V
DC current gain		h _{FE} (1)	V _{CE} = -2 V, I _C = -1 A	2000	—	—	
		h _{FE} (2)	V _{CE} = -2 V, I _C = -3 A	1000	—	—	
Collector-emitter saturation voltage		V _{CE} (sat)	I _C = -2 A, I _B = -4 mA	—	—	-1.5	V
Base-emitter saturation voltage		V _{BE} (sat)	I _C = -2 A, I _B = -4 mA	—	—	-2.0	V
Switching time	Turn-on time	t _{on}	 -I _{B1} = I _{B2} = 6 mA, DUTY CYCLE ≤ 1%	—	0.30	—	μs
	Storage time	t _{stg}		—	0.60	—	
	Fall time	t _f		—	0.25	—	

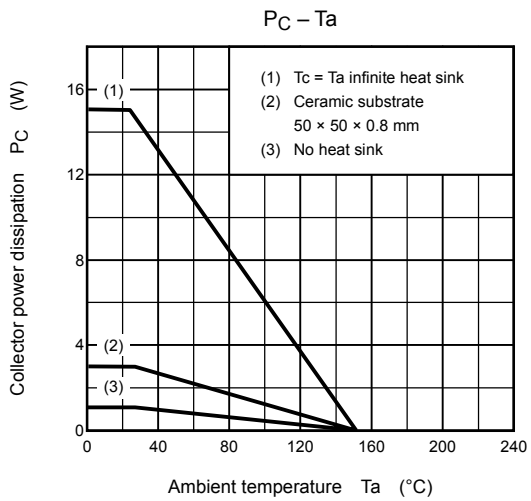
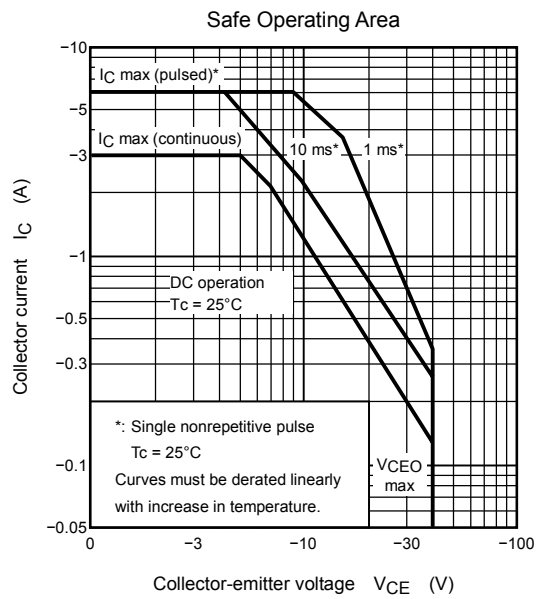
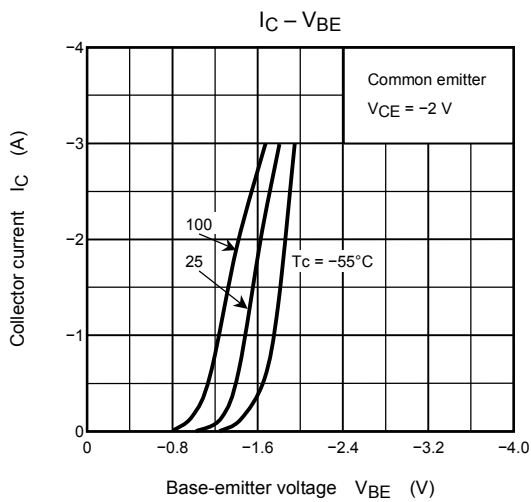
Marking



Explanation of Lot No.







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