

TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT process)

# 2SB907

## Switching Applications

Hammer Drive, Pulse Motor Drive Applications

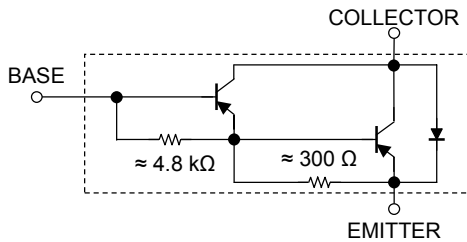
Power Amplifier Applications

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

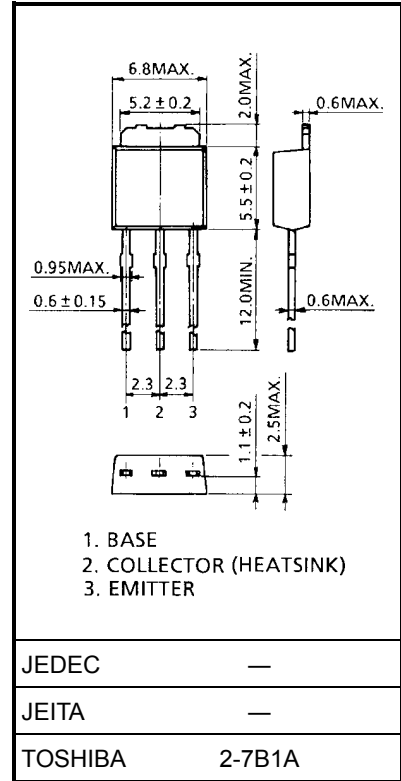
## Maximum Ratings (Ta = 25°C)

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

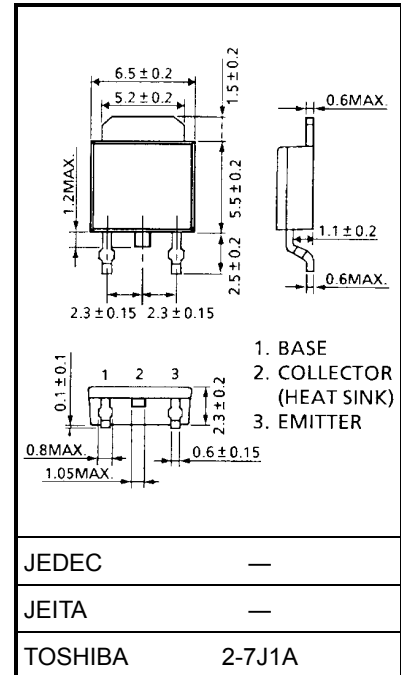
## Equivalent Circuit



Unit: mm



Weight: 0.36 g (typ.)

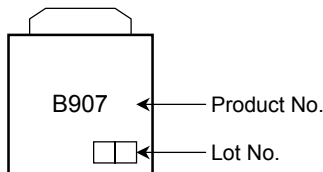


Weight: 0.36 g (typ.)

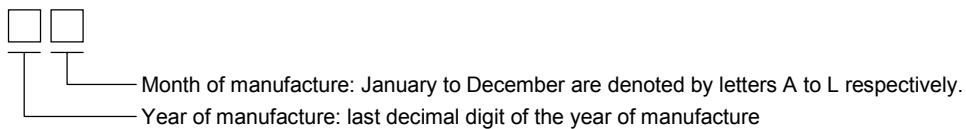
## Electrical Characteristics (Ta = 25°C)

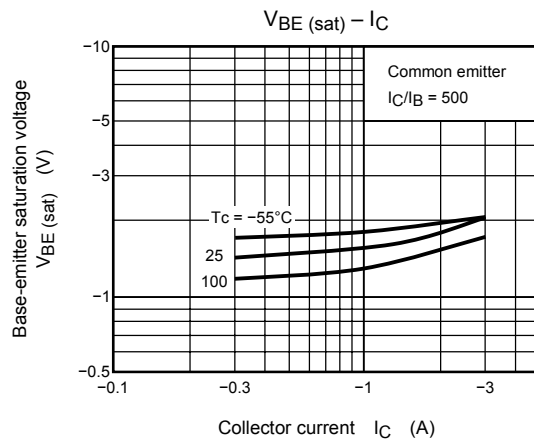
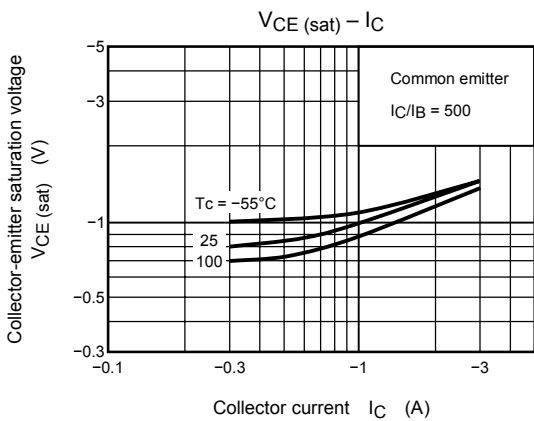
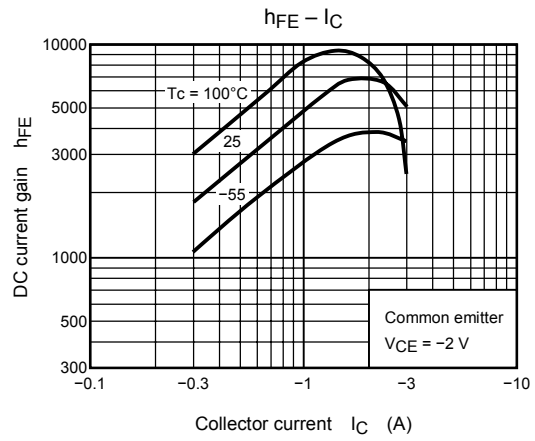
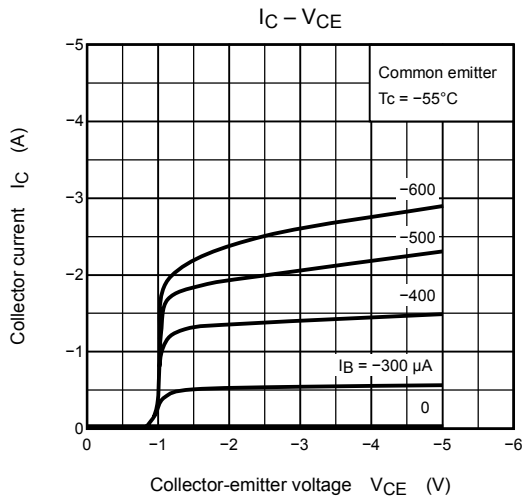
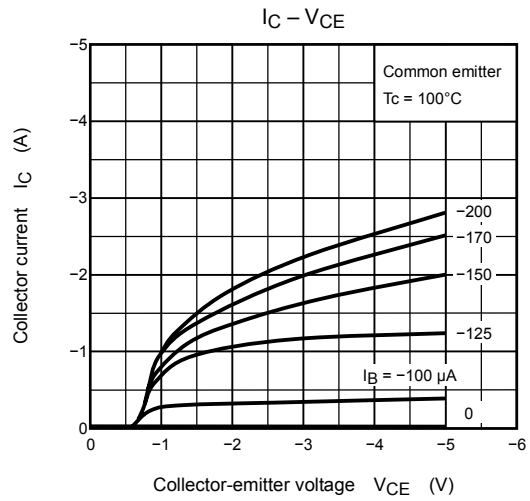
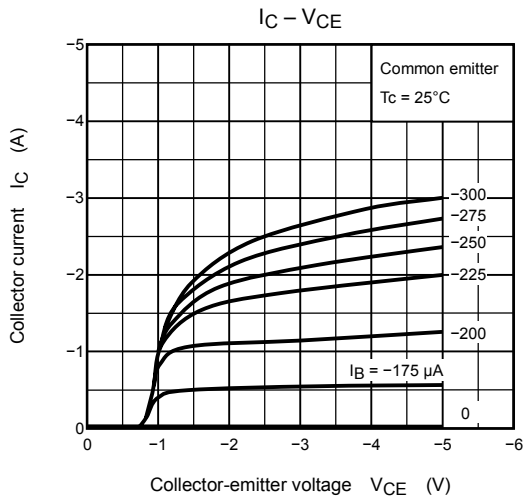
Characteristics		Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current		$I_{CBO}$	$V_{CB} = -60\text{ V}, I_E = 0$	—	—	-20	$\mu\text{A}$
Emitter cut-off current		$I_{EBO}$	$V_{EB} = -5\text{ V}, I_C = 0$	—	—	-2.5	$\text{mA}$
Collector-emitter breakdown voltage		$V_{(BR)CEO}$	$I_C = -25\text{ mA}, I_B = 0$	-40	—	—	$\text{V}$
DC current gain		$h_{FE(1)}$	$V_{CE} = -2\text{ V}, I_C = -1\text{ A}$	2000	—	—	
		$h_{FE(2)}$	$V_{CE} = -2\text{ V}, I_C = -3\text{ A}$	1000	—	—	
Collector-emitter saturation voltage		$V_{CE(sat)}$	$I_C = -2\text{ A}, I_B = -4\text{ mA}$	—	—	-1.5	$\text{V}$
Base-emitter saturation voltage		$V_{BE(sat)}$	$I_C = -2\text{ A}, I_B = -4\text{ mA}$	—	—	-2.0	$\text{V}$
Switching time	Turn-on time	$t_{on}$		—	0.30	—	$\mu\text{s}$
	Storage time	$t_{stg}$		—	0.60	—	
	Fall time	$t_f$		—	—	0.25	
			$-I_{B1} = I_{B2} = 6\text{ mA}, \text{DUTY CYCLE} \leq 1\%$				

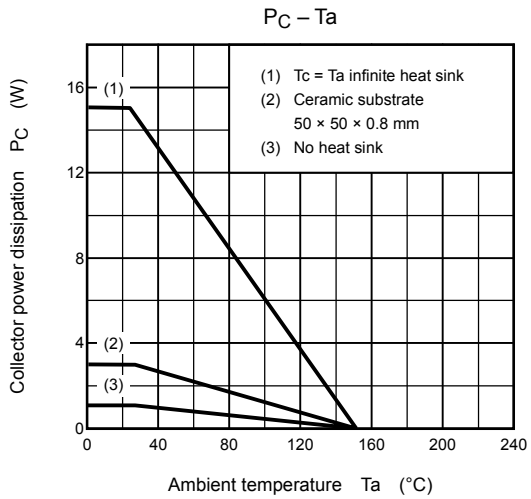
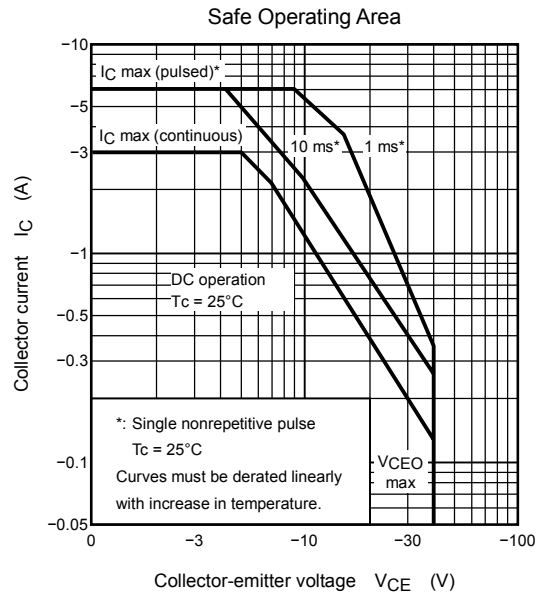
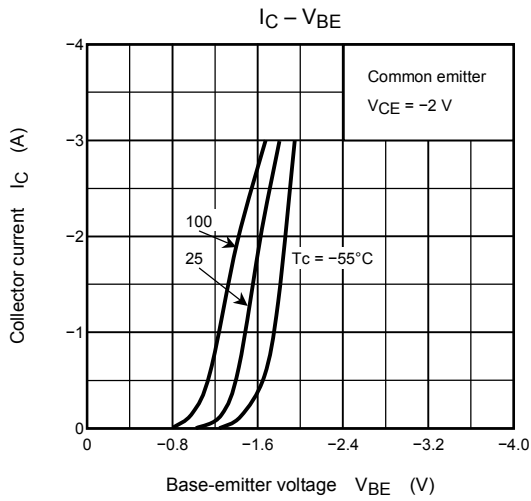
## Marking



## Explanation of Lot No.







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