

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2SB907

SWITCHING APPLICATIONS

HAMMER DRIVE, PULSE MOTOR DRIVE APPLICATIONS

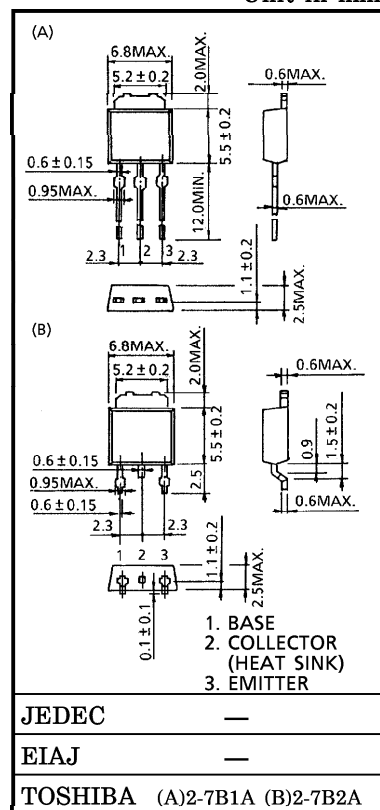
POWER AMPLIFIER APPLICATIONS

- High DC Current Gain
: $h_{FE(1)} = 2000$ (Min.) ($V_{CE} = -2\text{ V}$, $I_C = -1\text{ A}$)
- Low Saturation Voltage
: $V_{CE(sat)} = -1.5\text{ V}$ (Max.) ($I_C = -2\text{ A}$)
- Complementary to 2SD1222.

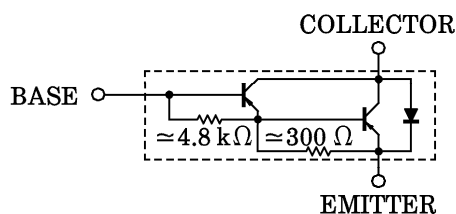
MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC		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	$T_a = 25^\circ\text{C}$	P_C	1.0	W
	$T_c = 25^\circ\text{C}$		15	
Junction Temperature		T_j	150	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	-55~150	$^\circ\text{C}$

Unit in mm



EQUIVALENT CIRCUIT



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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB} = -60\text{ V}, I_E = 0$	—	—	-20	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB} = -5\text{ V}, I_C = 0$	—	—	-2.5	mA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C = -25\text{ mA}, I_B = 0$	-40	—	—	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	—	—	
Saturation Voltage	Collector-Emitter	$V_{CE(sat)}$	$I_C = -2\text{ A}, I_B = -4\text{ mA}$	—	—	-1.5	V
	Base-Emitter	$V_{BE(sat)}$	$I_C = -2\text{ A}, I_B = -4\text{ mA}$	—	—	-2.0	
Switching Time	Turn-on Time	t_{on}	<p> $-I_{B1} = I_{B2} = 6\text{ mA}$, $DUTY\ CYCLE \leq 1\%$ $V_{CC} = -30\text{ V}$ </p>	—	0.30	—	μs
	Storage Time	t_{stg}		—	0.60	—	
	Fall Time	t_f		—	—	0.25	

