

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2SD1220

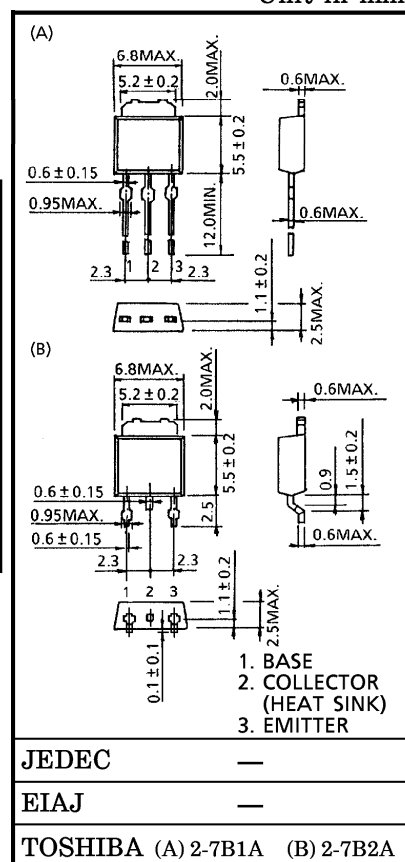
POWER AMPLIFIER APPLICATIONS

- Complementary to 2SB905

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	150	V
Collector-Emitter Voltage	V_{CEO}	150	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	1.5	A
Base Current	I_B	1.0	A
Collector Power Dissipation	P_C	1.0	W
		10	
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55 \sim 150$	$^\circ\text{C}$

Unit in mm



Weight : 0.36 g (Typ.)

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 150\text{ V}, I_E = 0$	—	—	1.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 6\text{ V}, I_C = 0$	—	—	1.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10\text{ mA}, I_B = 0$	150	—	—	V
DC Current Gain	h_{FE} (Note)	$V_{CE} = 5\text{ V}, I_C = 200\text{ mA}$	60	—	320	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 500\text{ mA}, I_B = 50\text{ mA}$	—	—	1.5	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = 5\text{ V}, I_C = 5\text{ mA}$	0.5	—	0.8	V
Transition Frequency	f_T	$V_{CE} = 5\text{ V}, I_C = 200\text{ mA}$	20	100	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	13	20	pF

Note : h_{FE} Classification R : 60~120, O : 100~200, Y : 160~320

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