

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2SC2983

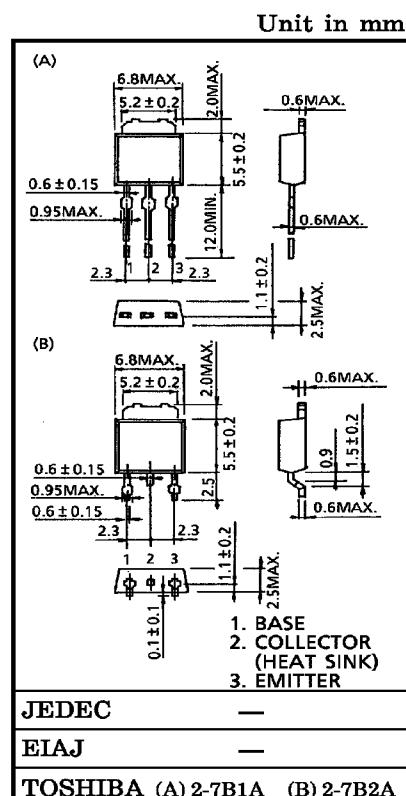
POWER AMPLIFIER APPLICATIONS

DRIVER STAGE AMPLIFIER APPLICATIONS

- High Transition Frequency : $f_T = 100$ MHz (Typ.)
- Complementary to 2SA1225

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	160	V
Collector-Emitter Voltage	V_{CEO}	160	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	1.5	A
Base Current	I_B	0.3	A
Collector Power Dissipation	P_C	1.0 15	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55~150	$^\circ\text{C}$



JEDEC —

EIAJ —

TOSHIBA (A) 2-7B1A (B) 2-7B2A

Weight : 0.36 g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 160$ V, $I_E = 0$	—	—	1.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 5$ V, $I_C = 0$	—	—	1.0	μA
Collector-Emitter Breakdown Voltage	$V_{(\text{BR})CEO}$	$I_C = 10$ mA, $I_B = 0$	160	—	—	V
Emitter-Base Breakdown Voltage	$V_{(\text{BR})EBO}$	$I_E = 1$ mA, $I_C = 0$	5	—	—	V
DC Current Gain	h_{FE} (Note)	$V_{CE} = 5$ V, $I_C = 100$ mA	70	—	240	
Collector-Emitter Saturation Voltage	$V_{CE(\text{sat})}$	$I_C = 500$ mA, $I_B = 50$ mA	—	—	1.5	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = 5$ V, $I_C = 500$ mA	—	—	1.0	V
Transition Frequency	f_T	$V_{CE} = 10$ V, $I_C = 100$ mA	—	100	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10$ V, $I_E = 0$, $f = 1$ MHz	—	25	—	pF

Note : h_{FE} Classification O : 70~140, Y : 120~240

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