

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2SA1244

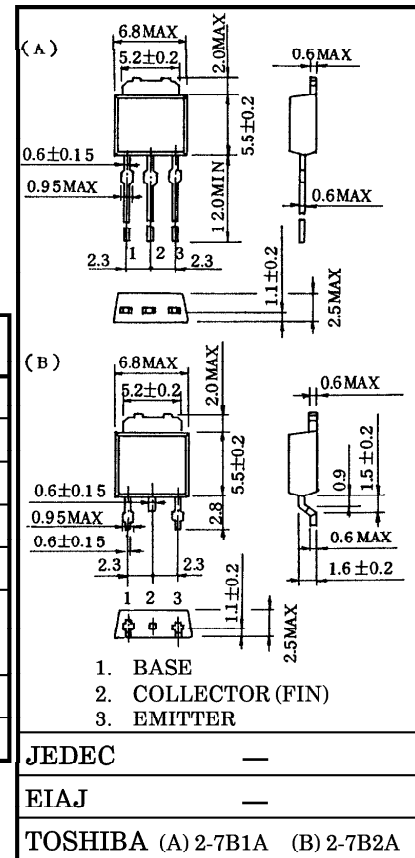
HIGH CURRENT SWITCHING APPLICATIONS.

- Low Collector Saturation Voltage
: $V_{CE(sat)} = -0.4V$ (Max.) at $I_C = -3A$
- High Speed Switching Time : $t_{stg} = 1.0\mu s$ (Typ.)
- Complementary to 2SC3074

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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CB0}	-60	V
Collector-Emitter Voltage		V_{CE0}	-50	V
Emitter-Base Voltage		V_{EB0}	-5	V
Collector Current		I_C	-5	A
Base Current		I_B	-1	A
Collector Power Dissipation	$T_a = 25^\circ C$	P_C	1.0	W
	$T_c = 25^\circ C$		20	
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	-55~150	$^\circ C$

Unit in mm



JEDEC —
EIAJ —
TOSHIBA (A) 2-7B1A (B) 2-7B2A

Weight : 0.36g

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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		ICBO	V _{CB} = -50V, I _E = 0	—	—	-1	μA
Emitter Cut-off Current		IEBO	V _{EB} = -5V, I _C = 0	—	—	-1	μA
Collector-Emitter Breakdown Voltage		V _{(BR)CEO}	I _C = -10mA, I _B = 0	-50	—	—	V
DC Current Gain		h _{FE(1)} (Note)	V _{CE} = -1V, I _C = -1A	70	—	240	
		h _{FE(2)}	V _{CE} = -1V, I _C = -3A	30	—	—	
Saturation Voltage	Collector-Emitter	V _{CE(sat)}	I _C = -3A, I _B = -0.15A	—	-0.2	-0.4	V
	Base-Emitter	V _{BE(sat)}	I _C = -3A, I _B = -0.15A	—	-0.9	-1.2	
Transition Frequency		f _T	V _{CE} = -4V, I _C = -1A	—	60	—	MHz
Collector Output Capacitance		C _{ob}	V _{CB} = -10V, I _E = 0, f = 1MHz	—	170	—	pF
Switching Time	Turn-on Time	t _{on}	<p> $20\mu s$ INPUT I_{B2} I_{B1} $-I_{B1} = I_{B2} = 0.15A$ DUTY CYCLE $\leq 1\%$ OUTPUT 10Ω $V_{CC} = -30V$ </p>	—	0.1	—	μs
	Storage Time	t _{stg}		—	1.0	—	
	Fall Time	t _f		—	0.1	—	

Note : h_{FE(1)} Classification O : 70~140 Y : 120~240

