

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2SA1244

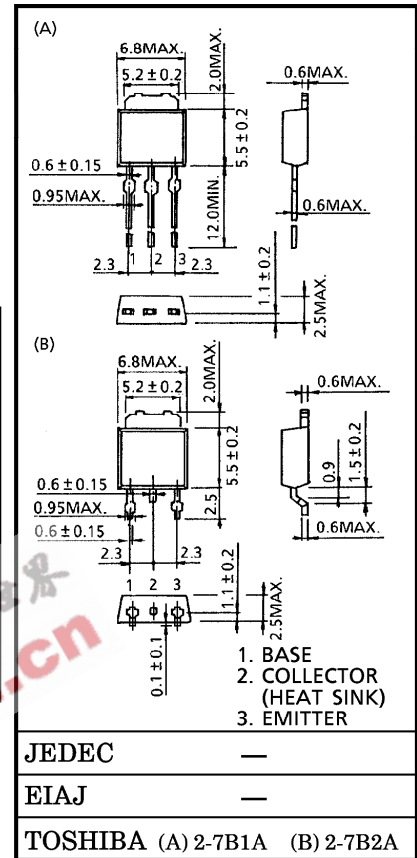
HIGH CURRENT SWITCHING APPLICATIONS

Unit in mm

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

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

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

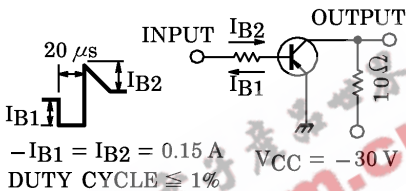


Weight : 0.36 g

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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

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

