Unit in mm

(HEAT SINK) **EMITTER**

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2 S A 1 2 4 2

STROBE FLASH APPLICATIONS MEDIUM POWER AMPLIFIER APPLICATIONS

- $h_{FE} = 100 \sim 320 \text{ (V}_{CE} = -2 \text{ V, I}_{C} = -0.5 \text{ A})$
- $h_{FE} = 70$ (Min.) ($V_{CE} = -2 V$, $I_{C} = -4 A$)
- Low Collector Saturation Voltage

:
$$V_{CE (sat)} = -1.0 V (Max.) (I_{C} = -4 A, I_{B} = -0.1 A)$$

- High Power Dissipation
 - : $P_C = 10 \text{ W} \text{ (Tc} = 25^{\circ}\text{C)}, P_C = 1.0 \text{ W} \text{ (Ta} = 25^{\circ}\text{C)}$

MAXIMUM RATINGS (Ta = 25°C)

CHARACTE	SYMBOL	RATING	UNIT		
Collector-Base Voltag	v_{CBO}	-35	V		
Collector-Emitter Vo	v_{CEO}	-20	V		
Emitter-Base Voltage	v_{EBO}	-8	V		
Collector Current	DC	$^{\mathrm{I}}\mathrm{C}$	-5	Α	
	Pulsed (Note 1)	I_{CP}	-8	Α	
Base Current	$I_{\mathbf{B}}$	-0.5	Α		
Collector Power Ta = 25°		D =:	1.0	w	
Dissipation	$Tc = 25^{\circ}C$	$P_{\mathbf{C}}$	10] **	
Junction Temperatur	$T_{\mathbf{j}}$	150	°C		
Storage Temperature Range		$\mathrm{T_{stg}}$	-55~150	°C	

(A) 0.6MAX. 0.95MAX 0.6MAX. (B) 6.8MAX 0.6MAX. 0.6 ± 0.15 0.95MAX. 0.6 ± 0.15 2. COLLECTOR

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

Weight: 0.36 g

JEDEC EIAJ

Note 1: Pulse Test: Pulse width = 10 ms (Max.), Duty cycle = 30% (Max.)

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The information contained herein is subject to change without notice.

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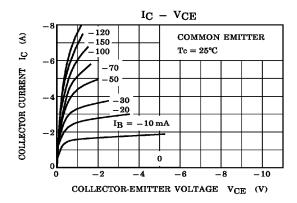
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

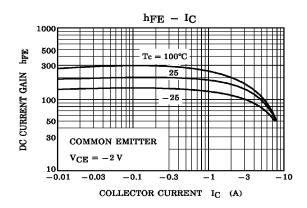
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -35 V, I_{E} = 0$	_	_	-100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -8 V, I_{C} = 0$	_	_	-100	nA
Collector-Emitter Breakdown Voltage	v_{CEO}	$I_{\mathrm{C}} = -10 \mathrm{mA}, I_{\mathrm{B}} = 0$	-20	_	_	v
Emitter-Base Breakdown Voltage	v_{EBO}	$I_{\mathrm{E}} = -1 \mathrm{mA}, I_{\mathrm{C}} = 0$	-8	_	_	v
DC Current Gain	^h FE (1) (Note 2)	$V_{CE} = -2 V, I_{C} = -0.5 A$	100	_	320	
	h _{FE} (2)	$ m V_{CE} = -2 V, I_{C} = -4 A$	70	_		
Collector-Emitter Saturation Voltage	V _{CE} (sat)	$I_{\rm C} = -4$ A, $I_{\rm B} = -0.1$ A	_	_	-1.0	v
Base-Emitter Voltage	$ m v_{BE}$	$V_{CE} = -2 V, I_{C} = -4 A$	_	_	-1.5	V
Transition Frequency	$\mathbf{f_T}$	$V_{CE} = -2 V, I_{C} = -0.5 A$	_	170	_	MHz
Collector Output Capacitance	C _{ob}	$egin{aligned} V_{\mathbf{CB}} &= -10 \mathrm{V}, \ \mathrm{I_E} &= 0, \\ \mathrm{f} &= 1 \mathrm{MHz} \end{aligned}$	_	62	_	рF

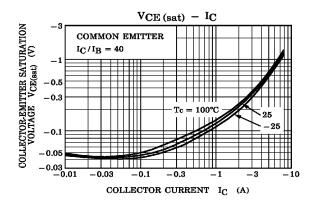
Note 2: h_{FE (1)} Classification O: $100\sim200$, Y: $160\sim320$

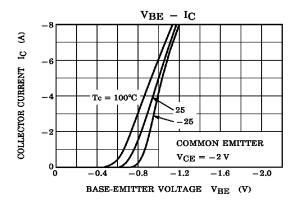
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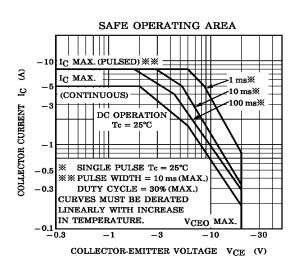
TOSHIBA 2SA1242

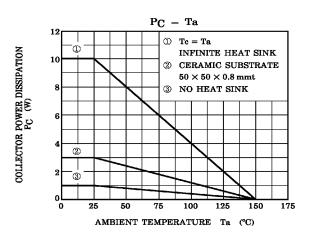












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