Unit in mm

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

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# STROBE FLASH APPLICATIONS AUDIO POWER AMPLIFIER APPLICATIONS

• High DC Current Gain : h<sub>FE</sub>=70 (min.)

 $(V_{CE} = -2V, I_{C} = -1A)$ 

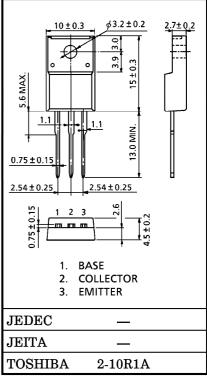
Low Collector Saturation Voltage:  $V_{CE (sat)} = -0.5V$  (max.)

 $(I_C = -8A, I_B = -0.4A)$ 

• High Collector Power Dissipation : P<sub>C</sub>=20W (T<sub>c</sub>=25°C)

### MAXIMUM RATINGS (Tc = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT	
Collector-Base Voltage		$v_{\mathrm{CBO}}$	-50	V	
Collector-Emitter Voltage		$v_{CEO}$	-20	V	
Emitter-Base Voltage		$v_{ m EBO}$	-8	V	
Collector Current	DC	IC	-10	A	
	Pulse	ICP	-20		
Base Current		$I_{\mathbf{B}}$	-2	A	
Collector Power	$Ta = 25^{\circ}C$	PC	2.0	w	
Dissipation	Tc = 25°C		20		
Junction Temperature		$T_{j}$	150	°C	
Storage Temperature Range		$\mathrm{T_{stg}}$	T <sub>stg</sub> -55~150		



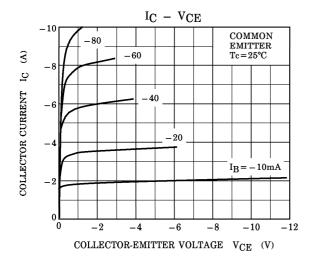
Weight: 1.7g (Typ.)

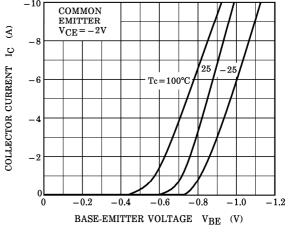
### ELECTRICAL CHARACTERISTICS (Tc = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -50V, I_{E} = 0$	_	_	-1.0	$\mu$ <b>A</b>
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = -8V, I_{C} = 0$	_	_	-1.0	$\mu$ <b>A</b>
Collector-Emitter Breakdown Voltage	V (BR) CEO	$I_{C} = -10 \text{mA}, I_{B} = 0$	-20	_	_	V
DC Current Gain	h <sub>FE (1)</sub> (Note)	$V_{CE} = -2V, I_{C} = -1A$	100	_	320	_
	h <sub>FE</sub> (2)	$V_{CE} = -2V$ , $I_{C} = -8A$	70	140	_	
Collector-Emitter Saturation Voltage	V <sub>CE (sat)</sub>	$I_C = -8A, I_B = -0.4A$	_	-0.3	-0.5	V
Base-Emitter Voltage	$v_{ m BE}$	$V_{CE} = -2V, I_{C} = -8A$	_	-0.95	-1.5	V
Transition Frequency	$ m f_{T}$	$V_{CE} = -2V$ , $I_{C} = -1A$	_	45	_	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_{E} = 0, f = 1MHz$	_	400		pF

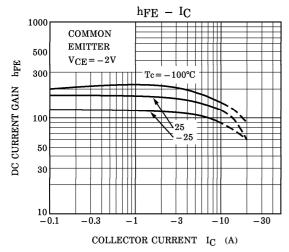
(Note):  $h_{FE(1)}$  Classification  $O: 100\sim200$ ,  $Y: 160\sim320$ 

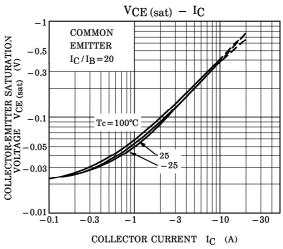
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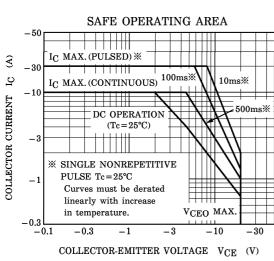


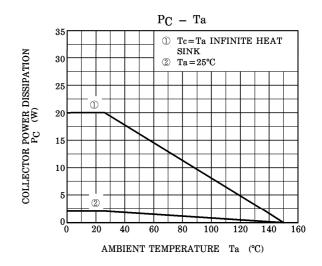


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