Unit in mm

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

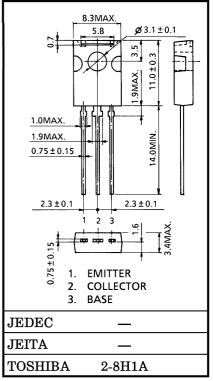
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MEDIUM POWER AMPLIFIER APPLICATIONS.

- Low Saturation Voltage
 - : $V_{CE (sat)} = 0.25V (Typ.) (I_C = 500mA, I_B = 50mA)$
- High Collector Power Dissipation: PC=1.2W (Ta=25°C)
- Complementary to 2SA1356

MAXIMUM RATINGS (Tc = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT	
Collector-Base Voltage		v_{CBO}	40	V	
Collector-Emitter Voltage		v_{CEO}	40	V	
Emitter-Base Voltage		$v_{ m EBO}$	5	V	
Collector Current		$I_{\mathbf{C}}$	800	mA	
Base Current		$I_{\mathbf{B}}$	80	mA	
Collector Power Dissipation	Ta=25°C	Pa	1.2	w	
	Tc = 25°C	PC	5		
Junction Temperature		$\mathrm{T_{j}}$	150	$^{\circ}\mathrm{C}$	
Storage Temperature Range		$ m T_{stg}$	-55~150	$^{\circ}\mathrm{C}$	



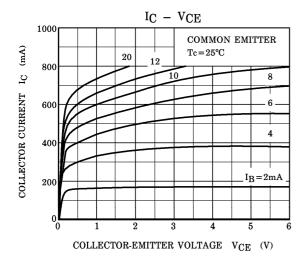
Weight: 0.82g (Typ.)

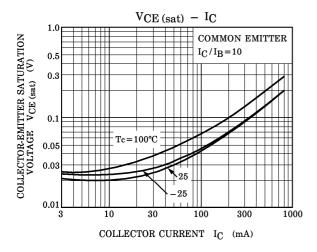
ELECTRICAL CHARACTERISTICS (Tc = 25°C)

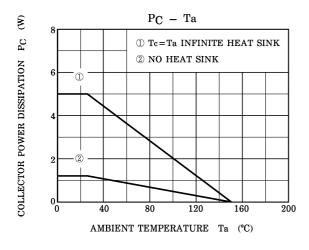
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I _{CBO}	$V_{CB} = 40V, I_{E} = 0$	_		1.0	μ A
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V, I_{C}=0$	_	_	1.0	μ A
Collector-Emitter Breakdown Voltage	V _(BR) CEO	$I_{\rm C}=10$ mA, $I_{\rm B}=0$	40	_	_	V
DC Current Gain	h _{FE (1)} (Note)	V _{CE} =2V, I _C =50mA	70	_	240	
	h _{FE} (2)	$V_{CE} = 2V, I_{C} = 0.8A$	13	60	_	
Collector-Emitter Saturation Voltage	V _{CE} (sat)	I _C =500mA, I _B =50mA	_	0.25	0.8	v
Base-Emitter Voltage	$V_{ m BE}$	$V_{CE} = 2V, I_{C} = 500 \text{mA}$	_	0.90	1.1	V
Transition Frequency	$ m f_{T}$	$V_{CE} = 2V, I_{C} = 0.5A$	50	100	_	MHz
Collector Output Capacitance	Cob	$V_{CB} = 10V, I_{E} = 0, f = 1MHz$	_	10	_	pF

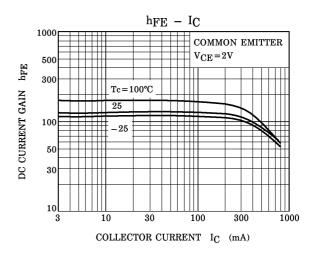
(Note): $h_{FE(1)}$ Classification $O: 70\sim140, Y: 120\sim240$

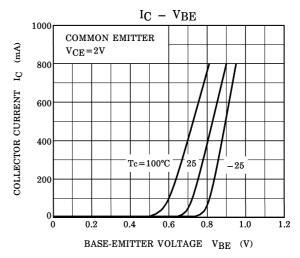
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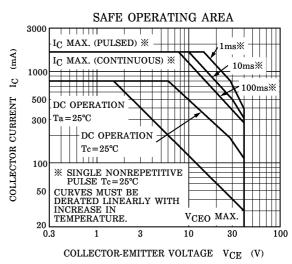












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