## TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

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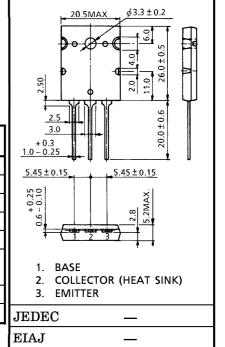
## POWER AMPLIFIER APPLICATIONS

- Complementary to 2SB1429
- Recommend for 100W High Fidelity Audio Frequency Amplifier Output Stage.

# MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$v_{\mathrm{CBO}}$	180	V
Collector-Emitter Voltage	$v_{CEO}$	180	V
Emitter-Base Voltage	$V_{ m EBO}$	5	V
Collector Current	$I_{\mathbf{C}}$	15	A
Base Current	$I_{\mathbf{B}}$	1.5	A
Collector Power Dissipation (Tc=25°C)	PC	150	W
Junction Temperature	$T_{j}$	150	°C
Storage Temperature Range	$\mathrm{T_{stg}}$	-55~150	°C

Unit in mm



2-21F1A

Weight: 9.7g (Typ.)

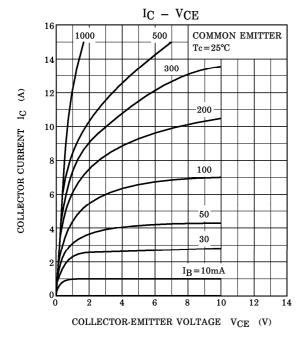
TOSHIBA

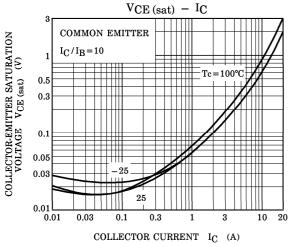
# ELECTRICAL CHARACTERISTICS (Ta = 25°C)

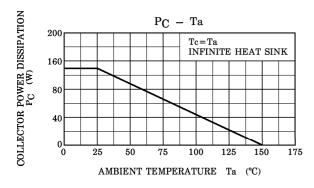
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 180V, I_{E} = 0$	_	_	5.0	$\mu$ <b>A</b>
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V, I_{C}=0$	_	_	5.0	$\mu$ A
Collector-Emitter Breakdown Voltage	V <sub>(BR)</sub> CEO	$I_{\rm C} = 50  {\rm mA}, \ I_{\rm B} = 0$	180	_	_	V
DC Current Gain	hFE (1) (Note)	$V_{\rm CE}$ =5V, $I_{\rm C}$ =1A	55	_	160	
	h <sub>FE</sub> (2)	$V_{CE}=5V, I_{C}=6A$	30	_	_	
Collector Emitter Saturation Voltage	V <sub>CE</sub> (sat)	$I_{\rm C}$ =8A, $I_{\rm B}$ =0.8A	_	_	2.0	V
Base-Emitter Voltage	$V_{ m BE}$	$V_{CE}=5V, I_{C}=6A$	_	_	1.5	V
Transition Frequency	${ m f_T}$	$V_{CE}=5V, I_{C}=1A$	_	10	_	MHz
Collector Output Capacitance	$\mathrm{C}_{\mathrm{ob}}$	$V_{CB} = 10V, I_{E} = 0, f = 1MHz$	_	160	_	pF

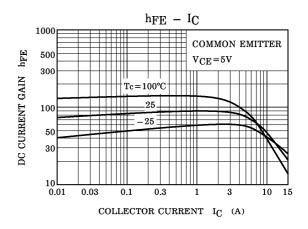
Note:  $h_{FE(1)}$  Classification R: 55~110, O: 80~160

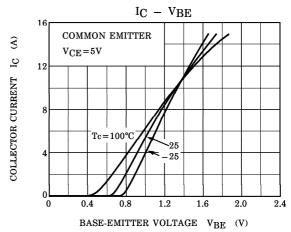
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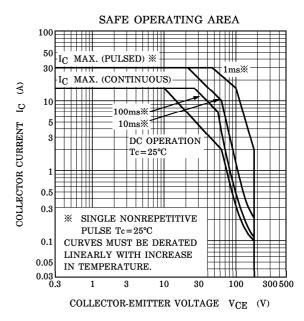












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