TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

## 2 S C 2 2 3 5

AUDIO POWER AMPLIFIER APPLICATIONS
DRIVER STAGE AMPLIFIER APPLICATIONS

• Complementary to 2SA965.

## MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$v_{CBO}$	120	V
Collector-Emitter Voltage	$v_{CEO}$	120	V
Emitter-Base Voltage	$V_{ m EBO}$	5	V
Collector Current	$I_{\mathbf{C}}$	800	mA
Emitter Current	$I_{\mathbf{E}}$	-800	mA
Collector Power Dissipation	PC	900	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$\mathrm{T_{stg}}$	-55~150	°C

Unit in mm

5.1 MAX

0.75MAX

1.0MAX

0.8MAX

0.6MAX

1. EMITTER

2. COLLECTOR

3. BASE

JEDEC TO-92MOD

JEITA

TOSHIBA

2-5J1A

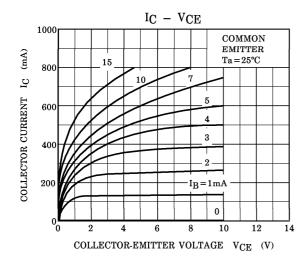
Weight: 0.36g (Typ.)

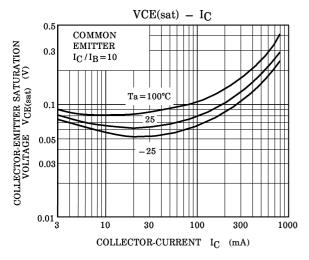
## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

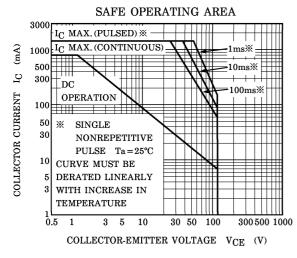
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 120V, I_{E} = 0$	_	_	100	nA
Emitter Cut-off Current	${ m I}_{ m EBO}$	$V_{EB}=5V, I_C=0$	_	_	100	nA
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	$I_{C}=10mA, I_{B}=0$	120	_	_	V
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	$I_E=1mA, I_C=0$	5	_	_	V
DC Current Gain	hFE (Note)	$V_{\text{CE}}=5V, I_{\text{C}}=100\text{mA}$	80	_	240	
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA	_	_	1.0	V
Base-Emitter Voltage	$ m V_{BE}$	$V_{\rm CE}$ =5V, $I_{\rm C}$ =500mA	_	_	1.0	V
Transition Frequency	${ m f_T}$	$V_{\rm CE}$ =5V, $I_{\rm C}$ =100mA	_	120	_	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 10V, I_{E} = 0, f = 1MHz$	_	_	30	pF

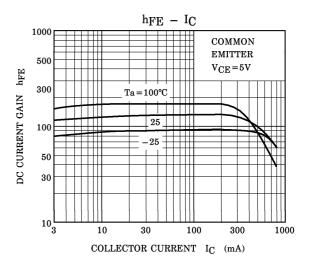
(Note): hFE Classification O:80~160, Y:120~240

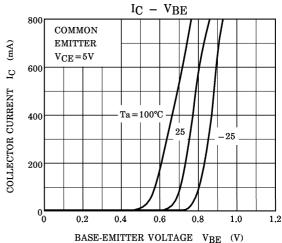
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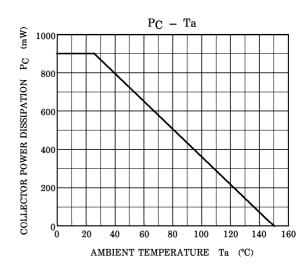












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