TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

## 2 S C 1 6 2 7 A

DRIVER STAGE AMPLIFIER APPLICATIONS.

VOLTAGE AMPLIFIER APPLICATIONS.

- Complementary to 2SA817A.
- Driver Stage Application of 30 to 35 Watts Amplifiers.

## MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT	
Collector-Base Voltage	$v_{CBO}$	80	V	
Collector-Emitter Voltage	$v_{CEO}$	80	V	
Emitter-Base Voltage	$V_{ m EBO}$	5	V	
Collector Current	$I_{\mathbf{C}}$	400	mA	
Base Current	$I_{\mathrm{B}}$	40	mA	
Collector Power Dissipation	$P_{\mathbf{C}}$	800	mW	
Junction Temperature	$T_{j}$	150	°C	
Storage Temperature Range	$ m T_{stg}$	-55~150	°C	

Unit in mm 5.1MAX 0.75MAX 1.0MAX 0.6MAX **EMITTER** 2. **COLLECTOR** 3. BASE **JEDEC** TO-92MOD **EIAJ** TOSHIBA 2-5J1A Weight: 0.36g

## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

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CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{\mathrm{CBO}}$	$V_{CB} = 50V, I_E = 0$		_	100	nA
Emitter Cut-off Current	$I_{ m EBO}$	$V_{EB}=5V, I_{C}=0$	_	_	100	nA
Collector-Emitter Breakdown Voltage	V (BR) CEO	$I_{\rm C}=5{ m mA},~I_{\rm B}=0$	80	-	_	V
DC Current Gain	h <sub>FE (1)</sub> (Note)	$V_{CE} = 2V, I_{C} = 50mA$	70		240	
	h <sub>FE (2)</sub>	$V_{\rm CE}$ =2V, $I_{\rm C}$ =200mA	40	_	_	
Collector-Emitter Saturation Voltage	V <sub>CE</sub> (sat)	$I_{C} = 200 \text{mA}, I_{B} = 20 \text{mA}$	_	-	0.4	V
Base-Emitter Voltage	$ m V_{BE}$	$V_{\rm CE}$ =2V, $I_{\rm C}$ =5mA	0.55	_	0.8	V
Transition Frequency	$ m f_{T}$	$V_{ m CE}$ =10V, $I_{ m C}$ =10mA		100		MHz
Collector Output Capacitance	C <sub>ob</sub>	$V_{\mathrm{CB}} = 10 \mathrm{V}, \ \mathrm{f} = 1 \mathrm{MHz}$	_	10	_	pF

Note: hFE(1) Classification  $O: 70\sim140, Y: 120\sim240$ 

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