TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

## 2 S C 2 8 8 3

AUDIO FREQUENCY AMPLIFIER APPLICATIONS.

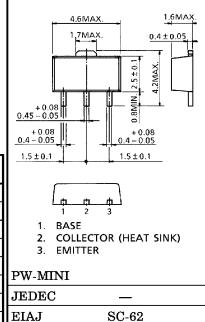
- Suitable for Output Stage of 3 Watts Amplifier
- PC=1~2W (Mounted Ceramic Substrate)
- Small Flat Package
- Complementary to 2SA1203

## MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT	
Collector-Base Voltage	$v_{CBO}$	30	V	
Collector-Emitter Voltage	$v_{CEO}$	30	V	
Emitter-Base Voltage	$v_{\mathrm{EBO}}$	5	V	
Collector Current	$I_{\mathbf{C}}$	1.5	A	
Base Current	$I_{\mathbf{B}}$	0.3	Α	
Collector Power Dissipation	$P_{\mathbf{C}}$	500	mW	
Collector Power Dissipation	P <sub>C</sub> (Note)	1000	mW	
Junction Temperature	$T_{j}$	150	°C	
Storage Temperature Range	${ m T_{stg}}$	-55~150	°C	

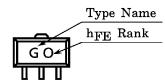
Note: Mounted on ceramic substrate (250mm $^2 \times 0.8t$ )

Unit in mm



Weight: 0.05g Marking

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2-5K1A

## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

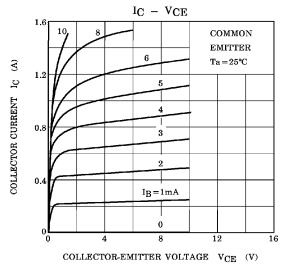
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{\mathrm{CBO}}$	$V_{CB} = 30V, I_{E} = 0$	_	_	0.1	$\mu$ A
Emitter Cut-off Current	$I_{ m EBO}$	$V_{EB}=5V, I_{C}=0$	_		0.1	$\mu$ <b>A</b>
Collector-Emitter Breakdown Voltage	V (BR) CEO	$I_{C}=10$ mA, $I_{B}=0$	30	_	_	V
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	$I_E=1$ mA, $I_C=0$	5	_	_	V
DC Current Gain	h <sub>FE</sub> (Note)	$V_{\rm CE}$ =2V, $I_{\rm C}$ =500mA	100	_	320	
Collector-Emitter Saturation Voltage	V <sub>CE</sub> (sat)	$I_{C}=1.5A, I_{B}=0.03A$	_	_	2.0	V
Base-Emitter Voltage	$ m v_{BE}$	$V_{\rm CE}$ =2V, $I_{\rm C}$ =500mA	_	_	1.0	V
Transition Frequency	$\mathbf{f_{T}}$	$V_{CE}=2V, I_{C}=500mA$	_	120	_	MHz
Collector Output Capacitance	$C_{\mathbf{ob}}$	$V_{CB} = 10V, I_{E} = 0, f = 1MHz$	_	_	40	pF

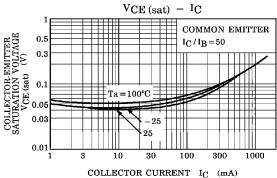
Note:  $h_{FE}$  Classification  $O: 100\sim200$ ,  $Y: 160\sim320$ 

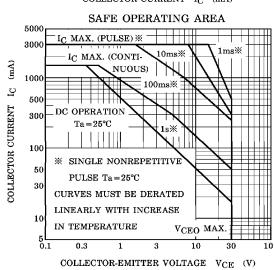
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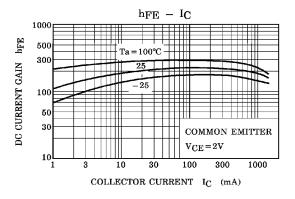
1997-04-10 1/2

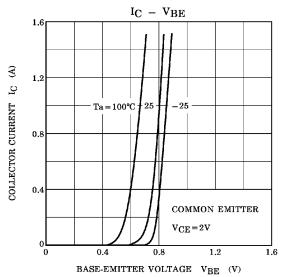
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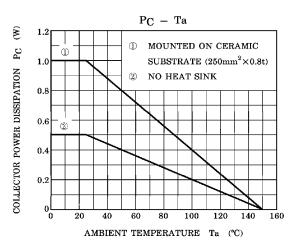












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1997-04-10 2/2