TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2SA1869

POWER AMPLIFIER APPLICATIONS

- Good Linearity of hFE
- Complementary to 2SC4935

MAXIMUM RATINGS (Tc = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	VCBO	-50	V
Collector-Emitter Voltage	v_{CEO}	-50	V
Emitter-Base Voltage	v_{EBO}	-5	V
Collector Current	$I_{\mathbf{C}}$	-3	A
Base Current	$I_{\mathbf{B}}$	-0.3	A
Collector Power Dissipation (Tc=25°C)	$P_{\mathbf{C}}$	10	w
Junction Temperature	$T_{\rm j}$	150	°C
Storage Temperature Range	$\mathrm{T}_{\mathrm{stg}}$	-55~150	°C

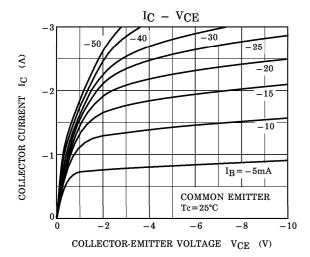
Weight: 1.7g (Typ.)

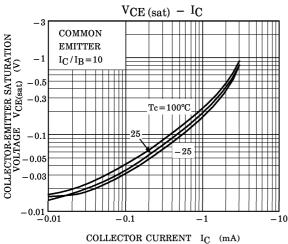
ELECTRICAL CHARACTERISTICS (Tc = 25°C)

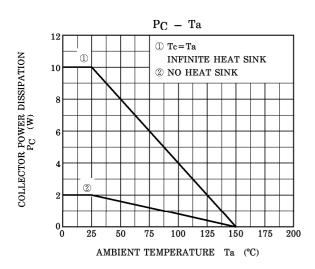
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -50V, I_{E} = 0$	<u> </u>	_	-1.0	μ A
Emitter Cut-off Current	$I_{ m EBO}$	$V_{EB} = -5V, I_{C} = 0$	_	_	-1.0	μ A
Collector-Emitter Breakdown Voltage	V (BR) CEO	$I_{C} = -10 \text{mA}, I_{B} = 0$	-50	_	_	V
DC Current Gain	hFE (1) (Note)	$V_{CE} = -2V, I_{C} = -0.5A$	70	_	240	
	hFE (2)	$V_{CE} = -2V, I_{C} = -2.5A$	30	_	_	
Collector-Emitter Saturation Voltage	V _{CE} (sat)	$I_{C} = -2A, I_{B} = -0.2A$	_	-0.3	-0.6	V
Base-Emitter Voltage	$ m V_{BE}$	$V_{CE} = -2V, I_{C} = -0.5A$	_	-0.8	-1.0	V
Transition Frequency	${ m f_T}$	$V_{CE} = -2V, I_{C} = -0.5A$	_	100	_	MHz
Collector Output Capacitance	$C_{ m ob}$	$V_{CB} = -10V, I_{E} = 0, f = 1MHz$	_	35		pF

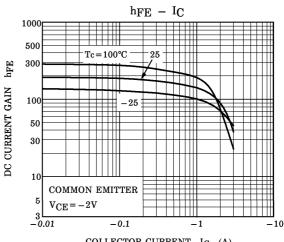
(Note): hFE (1) Classification O: 70~140, Y: 120~240

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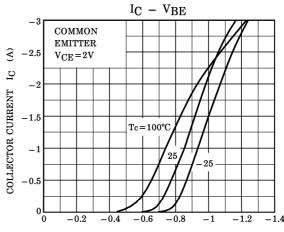




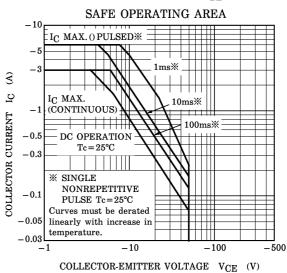




COLLECTOR CURRENT IC (A)



BASE-EMITTER VOLTAGE V_{BE} (V)



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