SEMICONDUCTOR **TOSHIBA**

TECHNICAL DATA

TOSHIBA TRANSISTOR 2 S A 1 3 0 2

SILICON PNP TRIPLE DIFFUSED TYPE

(2SA1302)

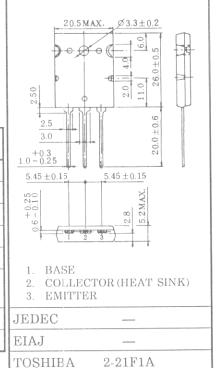
POWER AMPLIFIER APPLICATIONS.

- Complementary to 2SC3281
- Recommend for 100W High Fidelity Audio Frequency Amplifier Output Stage.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V _{CBO}	-200	V
Collector-Emitter Voltage	v_{CEO}	-200	V
Emitter-Base Voltage	VEBO	-5	V
Collector Current	I_{C}	-15	Α
Base Current	I_{B}	-1.5	A
Collector Power Dissipation (Tc=25°C)	PC	150	W
Junction Temperature	$T_{\rm j}$	150	°C
Storage Temperature Range	$T_{ m stg}$	-55~150	°C

Unit in mm



Weight: 9.75g

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -200V, I_{E} = 0$			-5.0	μ A
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5V, I_{C} = 0$	State and		-5.0	μ A
Collector-Emitter Breakdown Voltage	V _(BR) CEO	$I_{\rm C} = -50 \mathrm{mA}, \ I_{\rm B} = 0$	-200			V
DC Current Gain	hFE(1) (Note)	$V_{CE} = -5V, I_{C} = -1A$	55		160	
	hFE(2)	$V_{CE} = -5V, I_{C} = -8A$	35	60		
Collector-Emitter Saturation Voltage	V _{CE(sat)}	$I_{C} = -10A, I_{B} = -1A$		-1.5	-3.0	V
Base-Emitter Voltage	v_{BE}	$V_{CE} = -5V, I_{C} = -8A$		-1.0	-1.5	V
Transition Frequency	f_{T}	$V_{CE} = -5V$, $I_{C} = -1A$		25		MHz
Collector Output Capacitance	Cob	$V_{CB} = -10V$, $I_{E} = 0$, $f = 1MHz$		470		pF

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

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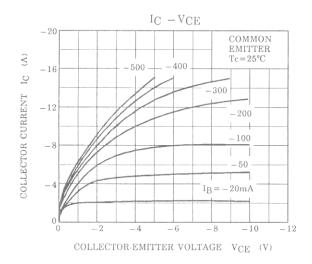
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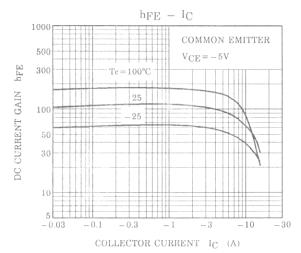
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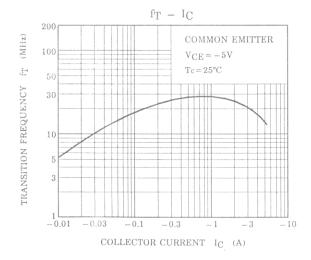
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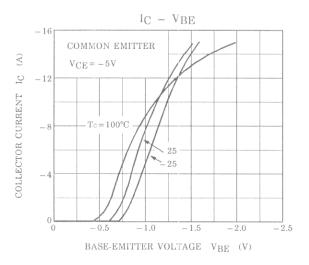
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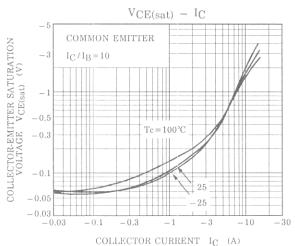
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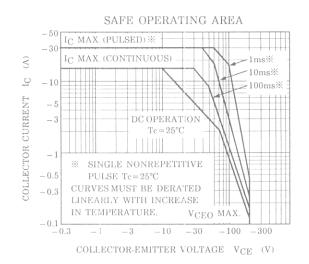












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SEMICONDUCTOR OSHIBA

TECHNICAL DATA

TOSHIBA TRANSISTOR 2 S A 1 3 0 2

SILICON PNP TRIPLE DIFFUSED TYPE

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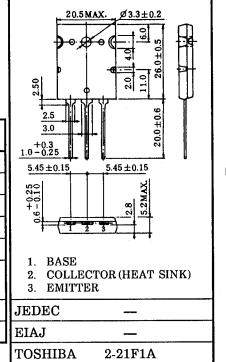
POWER AMPLIFIER APPLICATIONS.

- Complementary to 2SC3281
- Recommend for 100W High Fidelity Audio Frequency Amplifier Output Stage.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	v_{CBO}	-200	V
Collector-Emitter Voltage	$v_{ m CEO}$	-200	V
Emitter-Base Voltage	$v_{ m EBO}$	-5	V
Collector Current	IC	-15	A
Base Current	IB	-1.5	Α
Collector Power Dissipation (Tc=25°C)	PC	150	w
Junction Temperature	T_{j}	150	°C
Storage Temperature Range	$T_{ m stg}$	-55~150	°C

Unit in mm



Weight: 9.75g

0

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -200V, I_{E} = 0$			-5.0	μ A
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5V, I_{C} = 0$		_	-5.0	μ A
Collector-Emitter Breakdown Voltage	V _(BR) CEO	$I_{C} = -50 \text{mA}, I_{B} = 0$	-200		_	, V
DC Current Gain	hFE(1) (Note)	$V_{CE} = -5V, I_{C} = -1A$	55	_	160	
	hFE(2)	$V_{CE} = -5V, I_{C} = -8A$	35	60		
Collector-Emitter Saturation Voltage	V _{CE(sat)}	$I_{C} = -10A, I_{B} = -1A$		-1.5	-3.0	v
Base-Emitter Voltage	$v_{ m BE}$	$V_{CE} = -5V, I_{C} = -8A$		-1.0	-1.5	V
Transition Frequency	$ m f_{T}$	$V_{CE} = -5V$, $I_{C} = -1A$	-	25	_	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10V, I_{E} = 0, f = 1MHz$		470		pF

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

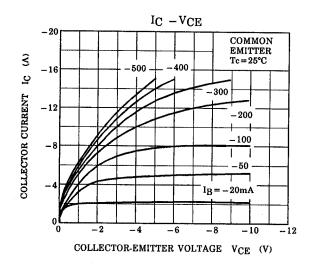
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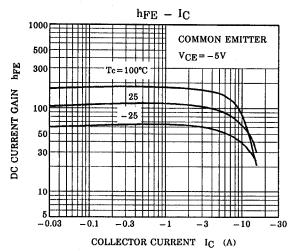
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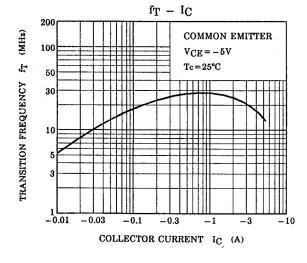
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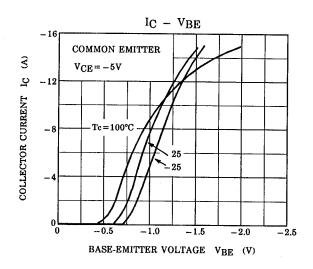
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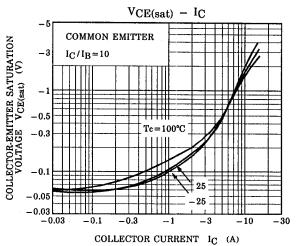
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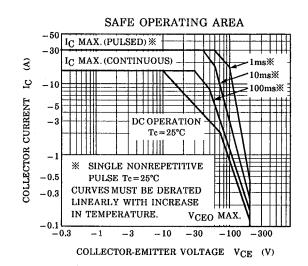












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