**TOSHIBA** 2SA1942

## TOSHIBA TRANSISTOR SILICON PNP TRIPLE DIFFUSED TYPE

# 2 S A 1 9 4 2

## POWER AMPLIFIER APPLICATIONS.

- Complementary to 2SC5199
- Recommend for 80W High Fidelity Audio Frequency Amplifier Output Stage.

#### MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$v_{CBO}$	-160	V
Collector-Emitter Voltage	$v_{CEO}$	-160	V
Emitter-Base Voltage	$v_{\mathrm{EBO}}$	-5	V
Collector Current	$I_{\mathbf{C}}$	-12	Α
Base Current	$I_{\mathbf{B}}$	-1.2	Α
Collector Power Dissipation (Tc=25°C)	PC	120	W
Junction Temperature	$T_{j}$	150	°C
Storage Temperature Range	$T_{ m stg}$	-55~150	$^{\circ}\mathrm{C}$

20.5MAX 5.45 ± 0.15 5.45 ± 0.15 0.25 1. BASE COLLECTOR (HEAT SINK) 3. EMITTER **JEDEC** EIAJ TOSHIBA 2-21F1A

Unit in mm

Weight: 9.75g

## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -160V, I_{E} = 0$	_	_	-5.0	$\mu$ A
Emitter Cut-off Current	$I_{ m EBO}$	$V_{EB} = -5V, I_{C} = 0$	_	_	-5.0	$\mu$ A
Collector-Emitter Breakdown Voltage	V (BR) CEO	$I_{C} = -50 \text{mA}, I_{B} = 0$	-160	_	_	V
DC Current Gain	hFE (1) (Note)	$V_{CE} = -5V, I_{C} = -1A$	55	_	160	
Ι Γ	hFE (2)	$V_{CE} = -5V, I_{C} = -6A$	35	80	_	
Collector-Emitter Saturation Voltage	V <sub>CE</sub> (sat)	$I_C = -8A, I_B = -0.8A$	_	-0.9	-2.5	V
Base-Emitter Voltage	$V_{ m BE}$	$V_{CE} = -5V, I_{C} = -6A$	_	-1.0	-1.5	V
Transition Frequency	$ m f_{ m T}$	$V_{CE} = -5V, I_{C} = -1A$	_	30	_	MHz
Collector Output Capacitance	$C_{ m ob}$	$V_{CB} = -10V, I_{E} = 0, f = 1MHz$	_	360	_	pF

Note :  $h_{FE(1)}$  Classification  $R:55\sim110, O:80\sim160$ 

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