## TOSHIBA TRANSISTOR SILICON PNP TRIPLE DIFFUSED TYPE

# 2 S A 1 9 8 7

#### POWER AMPLIFIER APPLICATIONS

- High Collector Voltage: VCEO = -230V (Min.)
- Complementary to 2SC5359
- Recommend for 100W High Fidelity Audio Frequency Amplifier Output Stage.

### MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	-230	V
Collector-Emitter Voltage	$v_{CEO}$	-230	V
Emitter-Base Voltage	$V_{ m EBO}$	-5	V
Collector Current	$I_{\mathbf{C}}$	-15	Α
Base Current	$I_{\mathbf{B}}$	-1.5	Α
Collector Power Dissipation (Tc=25°C)	PC	180	w
Junction Temperature	$T_{j}$	150	°C
Storage Temperature Range	$T_{ m stg}$	-55~150	°C

Unit in mm  $\phi$  3.3 ± 0.2 5.45 ± 0.15 +0.25 BASE COLLECTOR (HEAT SINK) **EMITTER JEDEC EIAJ** TOSHIBA 2-21F1A

Weight: 9.75g (Typ.)

# ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I <sub>CBO</sub>	$V_{CB} = -230V, I_{E} = 0$	_	_	-5.0	$\mu$ A
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = -5V, I_{C} = 0$	_	_	-5.0	$\mu$ A
Collector-Emitter Breakdown Voltage	V (BR) CEO	$I_{C} = -50 \text{mA}, I_{B} = 0$	-230	_	_	v
DC Current Gain	h <sub>FE (1)</sub> (Note)	$V_{CE} = -5V, I_{C} = -1A$	55	l	160	_
	h <sub>FE</sub> (2)	$V_{CE} = -5V, I_{C} = -7A$	35	70	_	
Collector-Emitter Saturation Voltage	V <sub>CE (sat)</sub>	$I_C = -8A, I_B = -0.8A$	_	-1.5	-3.0	V
Base-Emitter Voltage	$ m v_{BE}$	$V_{CE} = -5V, I_{C} = -7A$	_	-1.0	-1.5	V
Transition Frequency	$\mathbf{f_{T}}$	$V_{CE} = -5V$ , $I_{C} = -1A$	_	30	_	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$	_	360	_	рF

(Note) h<sub>FE</sub> (1) Classification R:  $55\sim110$ , O:  $80\sim160$ 

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