TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2 S C 5 2 0 0

POWER AMPLIFIER APPLICATIONS

- Complementary to 2SA1943
- Recommended for 100W High Fidelity Audio Frequency Amplifier Output Stage.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	v_{CBO}	230	V
Collector-Emitter Voltage	VCEO	230	V
Emitter-Base Voltage	$v_{\rm EBO}$	5	V
Collector Current	$I_{\mathbf{C}}$	15	Α
Base Current	$I_{\mathbf{B}}$	1.5	Α
Collector Power Dissipation (Tc=25°C)	PC	150	w
Junction Temperature	Tj	150	$^{\circ}\mathrm{C}$
Storage Temperature Range	$T_{ m stg}$	-55~150	°C

Unit in mm \$3.3 ± 0.2 20.5MAX 5.45 ± 0.15 90 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_{CBO}	$V_{CB} = 230V, I_{E} = 0$	_	_	5.0	μ A
Emitter Cut-off Current	$I_{ m EBO}$	$V_{EB}=5V, I_{C}=0$	_	_	5.0	μ A
Collector-Emitter Breakdown Voltage	V _(BR) CEO	$I_{C}=50mA, I_{B}=0$	230	_	_	V
DC Current Gain	hFE (1) (Note)	$V_{\text{CE}}=5V, I_{\text{C}}=1A$	55	_	160	
	$h_{\mathrm{FE}(2)}$	$V_{CE}=5V, I_{C}=7A$	35	60	_	
Collector-Emitter Saturation Voltage	V _{CE} (sat)	I_{C} =8A, I_{B} =0.8A	_	0.40	3.0	v
Base-Emitter Voltage	$V_{ m BE}$	$V_{CE}=5V, I_{C}=7A$		1.0	1.5	V
Transition Frequency	$ m f_{T}$	$V_{CE}=5V$, $I_{C}=1A$		30	_	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10V, I_{E} = 0, f = 1MHz$	_	200	_	pF

Note: hFE(1) Classification $R:55\sim110, O:80\sim160$

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