TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2 S C 5 1 9 8

POWER AMPLIFIER APPLICATIONS

- Complementary to 2SA1941
- Recommend for 70W High Fidelity Audio Frequency Amplifier Output Stage.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	v_{CBO}	140	V
Collector-Emitter Voltage	VCEO	140	V
Emitter-Base Voltage	VEBO	5	V
Collector Current	$I_{\mathbf{C}}$	10	Α
Base Current	$I_{\mathbf{B}}$	1	Α
Collector Power Dissipation (Tc=25°C)	$P_{\mathbf{C}}$	100	w
Junction Temperature	Tj	150	°C
Storage Temperature Range	$\mathrm{T}_{\mathrm{stg}}$	-55~150	$^{\circ}\mathrm{C}$

Unit in mm $Ø3.2 \pm 0.2$ 5.45 ± 0.2 5.45 ± 0.2 99 BASE 2. COLLECTOR (HEAT SINK) **EMITTER JEDEC EIAJ**

Weight: 4.7g (Typ.)

2-16C1A

TOSHIBA

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 140V, I_{E} = 0$	_	_	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	$I_{C}=50mA, I_{B}=0$	140	_	_	V
DC Current Gain	hFE (1) (Note)	$V_{\text{CE}}=5V, I_{\text{C}}=1A$	55	_	160	
	h _{FE (2)}	$V_{CE}=5V, I_{C}=5A$	35	83	_	
Collector-Emitter Saturation Voltage	V _{CE} (sat)	$I_{C} = 7A, I_{B} = 0.7A$	_	0.3	2.0	V
Base-Emitter Voltage	$ m V_{BE}$	$V_{CE}=5V, I_{C}=5A$		0.9	1.5	V
Transition Frequency	$ m f_{T}$	$V_{CE}=5V$, $I_{C}=1A$	_	30	_	MHz
Collector Output Capacitance	C _{ob}	$V_{CB} = 10V, I_{E} = 0, f = 1MHz$	_	170	_	pF

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

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