TOSHIBA

Unit in mm

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2 S A 1 3 6 2

LOW FREQUENCY POWER AMPLIFIER APPLICATIONS. POWER SWITCHING APPLICATIONS.

High DC Current Gain : hFE=120~400

Low Saturation Voltage

 $: V_{CE} (sat) = -0.2V (Max.) (I_{C} = -400mA, I_{B} = -8mA)$

- Suitable for Driver Stage of Small Motor
- Small Package

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	VCBO	-15	V
Collector-Emitter Voltage	v_{CEO}	-15	V
Emitter-Base Voltage	$v_{ m EBO}$	-5	V
Collector Current	$I_{\mathbf{C}}$	-800	mA
Base Current	I_{B}	-160	mA
Collector Power Dissipation	$P_{\mathbf{C}}$	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	$\mathrm{T_{stg}}$	-55~150	°C

 $^{+0.25}_{-0.15}$ 0.05 0.95 2.9±0.2 BASE **EMITTER** COLLECTOR

JEDEC TO-236MOD **EIAJ** SC-59 TOSHIBA 2-3F1A

Weight: 0.012g

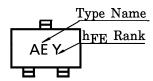
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -15V, I_{E} = 0$	_	_	-100	nA
Emitter Cut-off Current	$I_{ m EBO}$	$V_{EB} = -5V, I_C = 0$	_	_	-100	nA
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	$I_{C} = -10 \text{mA}, I_{B} = 0$	-15	_	_	V
DC Current Gain	hFE (1) (Note)	$V_{CE} = -1V, I_C = -100 \text{mA}$	120	1	400	
	$h_{\mathrm{FE}(2)}$	$V_{CE} = -1V, I_{C} = -800 \text{mA}$	40		_	
Collector-Emitter Saturation Voltage	V _{CE} (sat)	$I_C = -400 \text{mA}, I_B = -8 \text{mA}$	_	1	-0.2	V
Base-Emitter Voltage	$ m V_{BE}$	$V_{CE} = -1V, I_{C} = -10mA$	-0.5		-0.8	V
Transition Frequency	\mathbf{f}_{T}	$V_{CE} = -5V, I_{C} = -10mA$	_	120	_	MHz
Collector Output Capacitance	C _{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	_	13	_	рF

Note : hFE (1) Classification () Marking Symbol

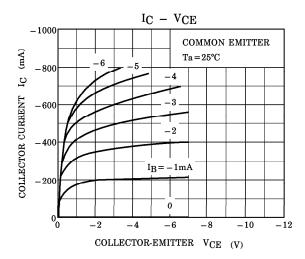
 $Y(Y): 120\sim240 \quad GR(G): 200\sim400$

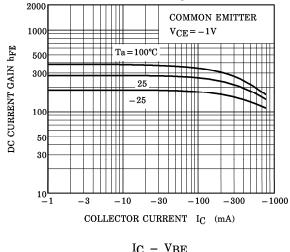
MARKING



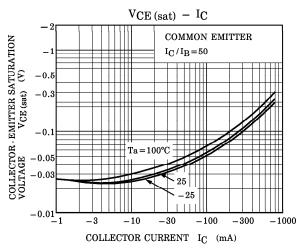
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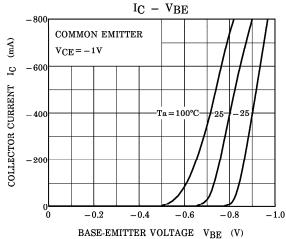
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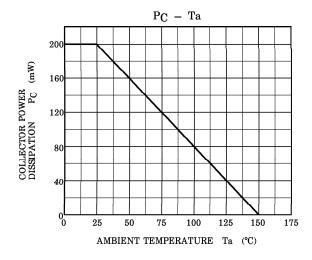




pE - IC







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