TOSHIBA Transistor Silicon PNP Epitaxial (PCT process)

2SA1182

Audio Frequency Low Power Amplifier Applications **Driver Stage Amplifier Applications Switching Applications**

Excellent hFE linearity: hFE(2) = 25 (min) at $V_{CE} = -6 \text{ V}$, $I_{C} = -400 \text{ mA}$

Complementary to 2SC2859.

Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-35	V
Collector-emitter voltage	V_{CEO}	-30	V
Emitter-base voltage	V_{EBO}	-5	>
Collector current	IC	-500	mA
Base current	lΒ	-50	mA
Collector power dissipation	PC	150	mW
Junction temperature	Tj	125	°C
Storage temperature range	T _{stg}	-55~125	°C

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the

Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

		Unit:	mm
2.9±0.2	1.9	2.5 + 0.5 2.5 - 0.3 + 0.25 1.5 - 0.15	+0.1
	1.1 + 0.2		0.16 - 0.06
S-M	INI	1. BASE 2. EMITTER 3. COLLECTOR	
JEDE	EC	TO-236MOD	
JEITA	4	SC-59	
TOSI	HIBA	2-3F1A	

Weight: 0.012 g (typ.)

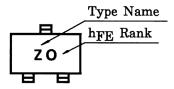
Electrical Characteristics (Ta = 25°C)

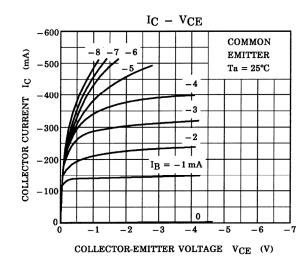
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I _{CBO}	$V_{CB} = -35 \text{ V}, I_E = 0$	_	_	-0.1	μΑ
Emitter cut-off current	I _{EBO}	$V_{EB} = -5 \text{ V}, I_C = 0$	_	_	-0.1	μΑ
DC current gain (Note)	h _{FE (1)}	$V_{CE} = -1 \text{ V, } I_{C} = -100 \text{ mA}$	70	_	240	
De current gain (Note)	h _{FE (2)}	$V_{CE} = -6 \text{ V}, I_{C} = -400 \text{ mA}$	25		_	
Collector-emitter saturation voltage	V _{CE (sat)}	$I_C = -100 \text{ mA}, I_B = -10 \text{ mA}$	_	-0.1	-0.25	V
Base-emitter voltage	V_{BE}	$V_{CE} = -1 \text{ V, } I_{C} = -100 \text{ mA}$	_	-0.8	-1.0	V
Transition frequency	f _T	$V_{CE} = -6 \text{ V}, I_{C} = -20 \text{ mA}$	_	200	_	MHz
Collector output capacitance	C _{ob}	$V_{CB} = -6 \text{ V}, I_E = 0, f = 1 \text{ MHz}$	-	13	_	pF

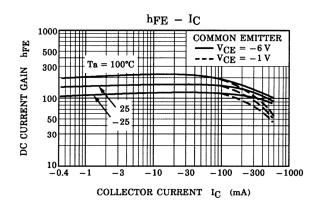
Note: hFE (1) classification O(O): 70~140, Y(Y): 120~240, GR(G): 200~400 () Marking Symbol

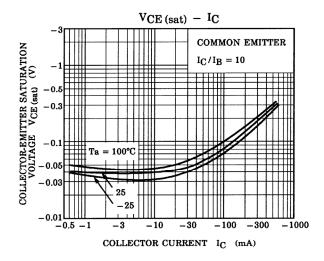
hFE (2) classification O: 25 (min), Y: 40 (min), GR: 70 (min)

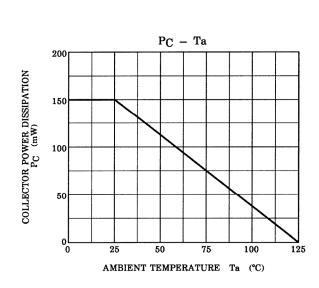
Marking

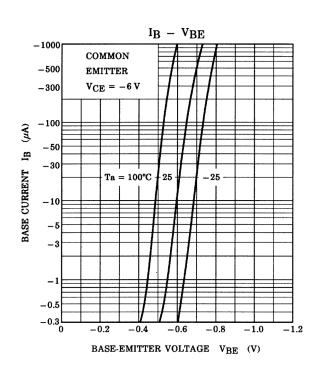












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20070701-EN GENERAL

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