TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL (PCT PROCESS)

## 2 S C 2 8 5 9

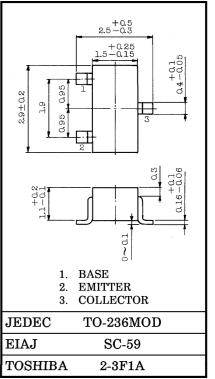
AUDIO FREQUENCY LOW POWER AMPLIFIER APPLICATIONS. DRIVER STAGE AMPLIFIER APPLICATIONS. SWITCHING APPLICATIONS.

- Excellent hpp Linearity
  - :  $h_{FE(2)} = 25(Min.) (V_{CE} = 6V, I_{C} = 400mA)$
- Complementary to 2SA1182.

## MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$v_{\mathrm{CBO}}$	35	V
Collector-Emitter Voltage	$v_{CEO}$	30	V
Emitter-Base Voltage	$v_{ m EBO}$	5	V
Collector Current	$I_{\mathbf{C}}$	500	mA
Base Current	$I_{\mathbf{B}}$	50	mA
Collector Power Dissipation	PC	150	mW
Junction Temperature	$T_{j}$	125	°C
Storage Temperature Range	$ m T_{stg}$	-55~125	°C

Unit in mm



Weight: 0.012g

## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

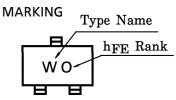
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 35V, I_{E} = 0$	_	_	0.1	$\mu$ <b>A</b>
Emitter Cut-off Current	$I_{ m EBO}$	$V_{EB}=5V, I_C=0$	_	_	0.1	$\mu$ A
DC Current Gain (Note)	h <sub>FE (1)</sub>	$V_{CE} = 1V, I_{C} = 100 \text{mA}$	70	_	400	
	h <sub>FE</sub> (2)	$V_{CE} = 6V, I_{C} = 400 \text{mA}$	25	_	_	
Collector-Emitter Saturation Voltage	V <sub>CE</sub> (sat)	I <sub>C</sub> =100mA, I <sub>B</sub> =10mA	_	0.1	0.25	V
Base-Emitter Voltage	$V_{ m BE}$	$V_{CE}=1V$ , $I_{C}=100mA$	_	0.8	1.0	V
Transition Frequency	$\mathbf{f_{T}}$	$V_{\text{CE}} = 6V$ , $I_{\text{C}} = 20\text{mA}$	_	300	_	MHz
Collector Output Capacitance	C <sub>ob</sub>	$V_{CB} = 6V, I_E = 0, f = 1MHz$	_	7	_	pF

Note:  $h_{FE(1)}$  Classification O(O):  $70\sim140$ , Y(Y):  $120\sim240$ ,

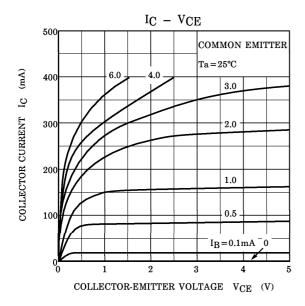
GR(G): 200~400

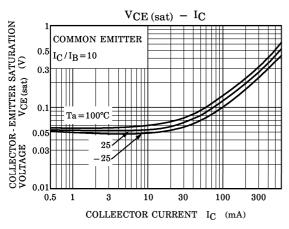
hFE(2) Classification O: 25Min., Y: 40Min. GR: 70Min.

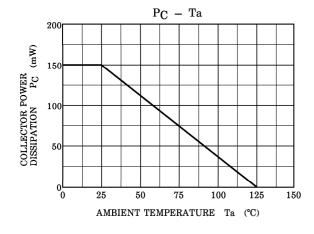
( ) Marking Symbol

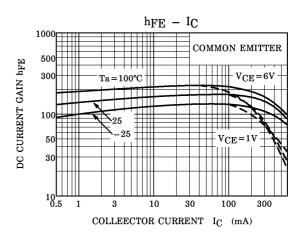


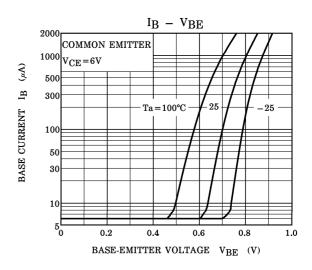
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