

TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

2SC2532

Audio Frequency Amplifier Applications
 Driver Stage for LED Lamp Applications
 Temperature Compensation Applications

- High h_{FE} : $h_{FE}(1) = 5000$ (min) ($I_C = 10$ mA)
 $h_{FE}(2) = 10000$ (min) ($I_C = 100$ mA)

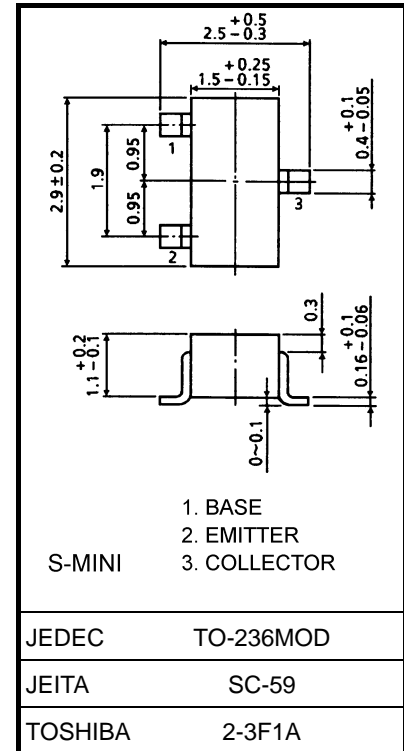
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	40	V
Collector-emitter voltage	V_{CEO}	40	V
Emitter-base voltage	V_{EBO}	10	V
Collector current	I_C	300	mA
Base current	I_B	60	mA
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55~125	$^\circ\text{C}$

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

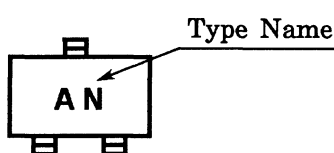


Weight: 0.012 g (typ.)

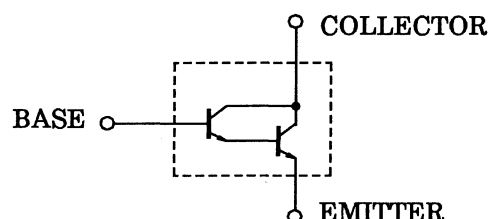
Electrical Characteristics ($T_a = 25^\circ\text{C}$)

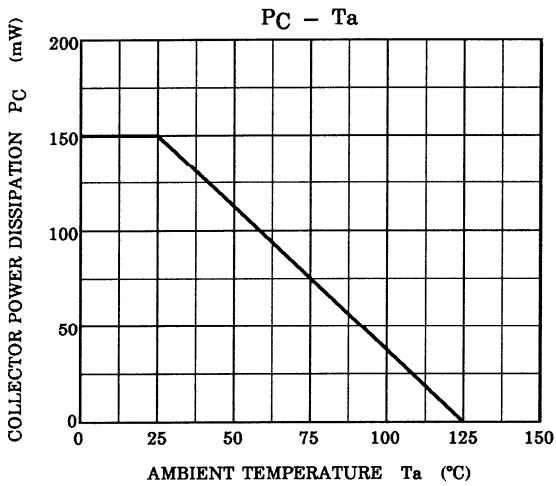
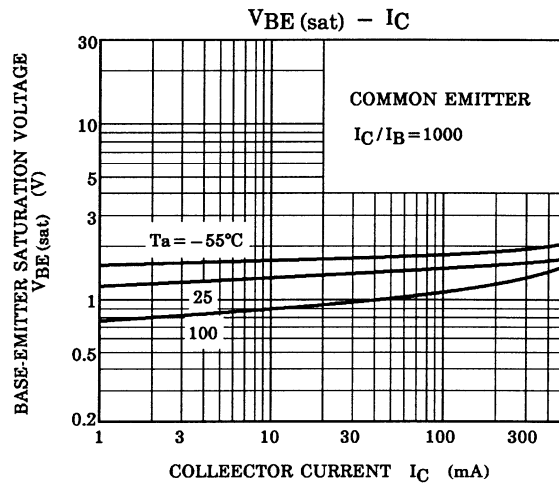
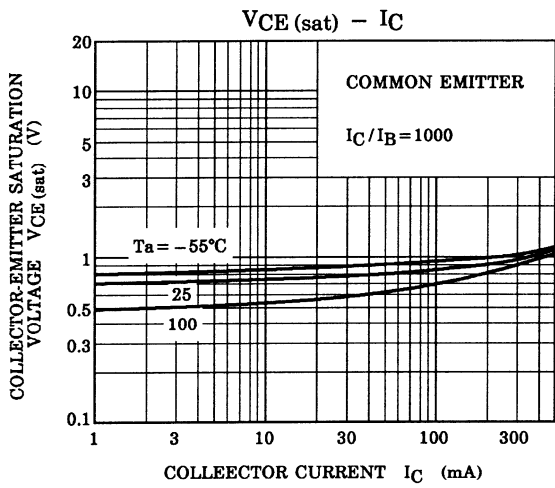
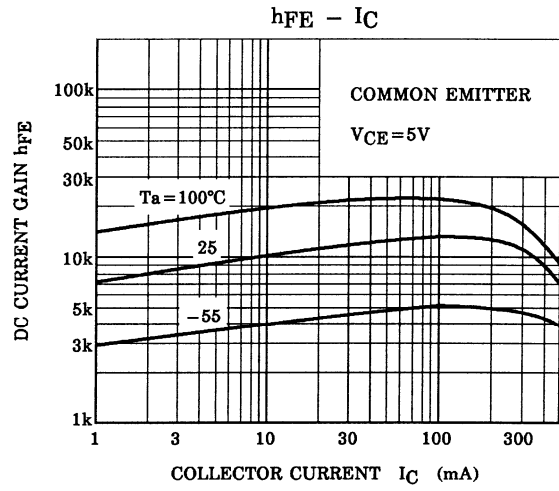
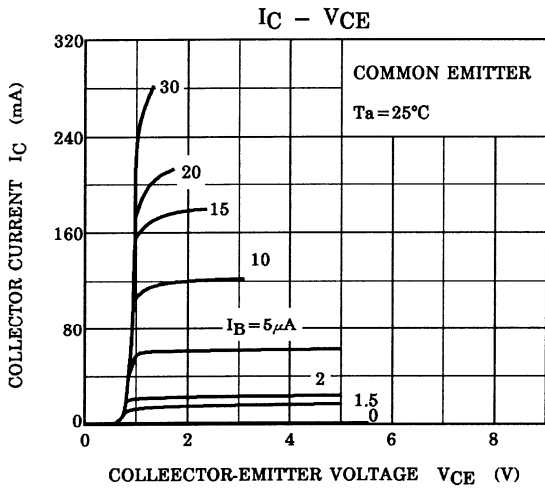
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = 40$ V, $I_E = 0$	—	—	0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 8$ V, $I_C = 0$	—	—	0.1	μA
DC current gain	$h_{FE}(1)$	$V_{CE} = 5$ V, $I_C = 10$ mA	5000	—	—	
	$h_{FE}(2)$	$V_{CE} = 2$ V, $I_C = 100$ mA	10000	—	—	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 300$ mA, $I_B = 0.3$ mA	—	0.9	1.3	V
Base-emitter voltage	V_{BE}	$V_{CB} = 2$ V, $I_C = 100$ mA	—	1.25	1.6	V

Marking



Equivalent Circuit





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