

2SA1926

Power Amplifier Applications

Power Switching Applications

- Low collector saturation voltage: $V_{CE(sat)} = -0.17 \text{ V (max)}$
($I_C = -1 \text{ A}$)

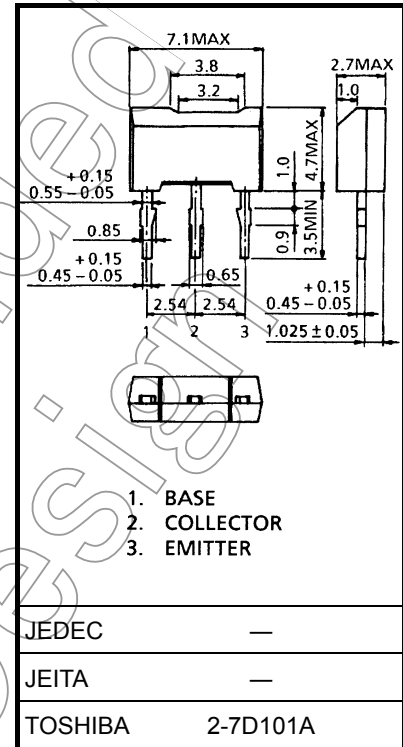
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-80	V
Collector-emitter voltage	V_{CEO}	-80	V
Emitter-base voltage	V_{EBO}	-8	V
Collector current	I_C	-3	A
Base current	I_B	-1	A
Collector power dissipation	P_C	1000	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to 150	$^\circ\text{C}$

Note 1: 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

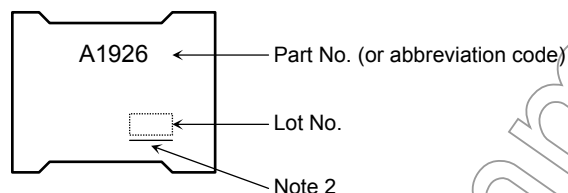


Weight: 0.2 g (typ.)

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = -80\text{ V}, I_E = 0$	—	—	-1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -8\text{ V}, I_C = 0$	—	—	-1	μA
Collector-emitter breakdown voltage	V_{CEO}	$I_C = -10\text{ mA}, I_B = 0$	-80	—	—	V
DC current gain	$h_{FE} (1)$	$V_{CE} = -2\text{ V}, I_C = -500\text{ mA}$	150	—	400	
	$h_{FE} (2)$	$V_{CE} = -2\text{ V}, I_C = -1.5\text{ A}$	40	—	—	
Collector-emitter saturation voltage	$V_{CE} (\text{sat})$	$I_C = -1\text{ A}, I_B = -50\text{ mA}$	—	—	-0.17	V
Base-emitter saturation voltage	$V_{BE} (\text{sat})$	$I_C = -1\text{ A}, I_B = -50\text{ mA}$	—	—	-1.2	V
Transition frequency	f_T	$V_{CE} = -2\text{ V}, I_C = -0.5\text{ A}$	—	80	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	45	—	pF

Marking



Note 2: A line under a Lot No. identifies the indication of product Labels.

Not underlined: $[[Pb]]/INCLUDES > MCV$

Underlined: $[[G]]/RoHS\ COMPATIBLE$ or $[[G]]/RoHS\ [[Pb]]$

Please contact your TOSHIBA sales representative for details as to environmental matters such as the RoHS compatibility of Product. The RoHS is the Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

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