

TOSHIBA Transistor Silicon PNP Epitaxial Type

2SA1802

Strobe Flash Applications
Medium Power Amplifier Applications

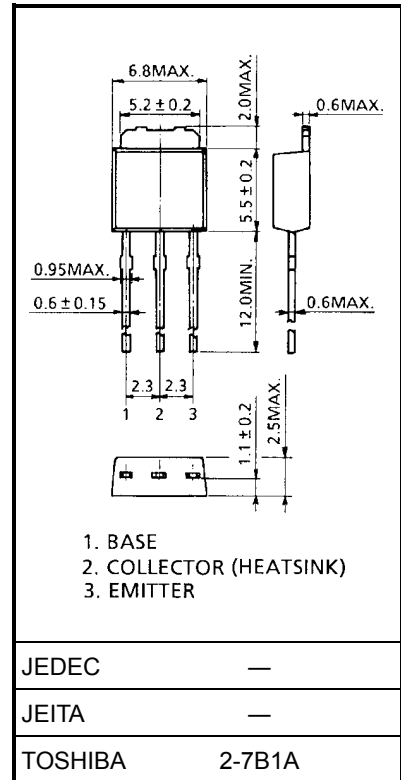
- Excellent hFE linearity
: $h_{FE(1)} = 200$ to 600 ($V_{CE} = -2$ V, $I_C = -0.5$ A)
: $h_{FE(2)} = 140$ (min), 200 (typ.) ($V_{CE} = -2$ V, $I_C = -3$ A)
- Low collector saturation voltage
: $V_{CE(sat)} = -0.5$ V (max) ($I_C = -3$ A, $I_B = -60$ mA)
- Complementary to 2SC4681

Maximum Ratings (Ta = 25°C)

Characteristics		Symbol	Rating	Unit
Collector-base voltage		V_{CBO}	-30	V
Collector-emitter voltage		V_{CES}	-30	V
		V_{CEO}	-10	
Emitter-base voltage		V_{EBO}	-6	V
Collector current	DC	I_C	-3	A
	Pulsed (Note 1)	I_{CP}	-6	
Base current		I_B	-0.5	A
Collector power dissipation	Ta = 25°C	P_C	1.0	W
	Tc = 25°C		10	
Junction temperature		T_j	150	°C
Storage temperature range		T_{stg}	-55 to 150	°C

Note 1: Pulse test: Pulse width = 10 ms (max), duty cycle = 30% (max)

Unit: mm

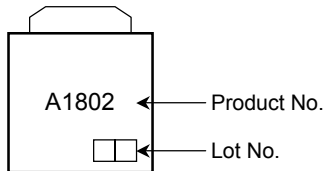


Weight: 0.36 g (typ.)

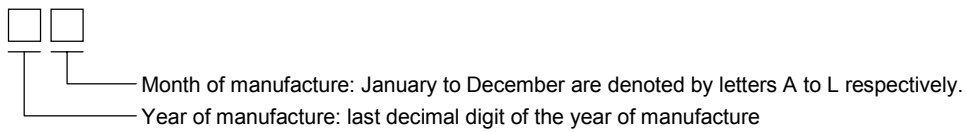
Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = -20\text{ V}, I_E = 0$	—	—	-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6\text{ V}, I_C = 0$	—	—	-100	nA
Collector-emitter breakdown voltage	$V_{(BR) CEO}$	$I_C = -10\text{ mA}, I_B = 0$	-10	—	—	V
DC current gain	$h_{FE (1)}$	$V_{CE} = -2\text{ V}, I_C = -0.5\text{ A}$	200	—	600	
	$h_{FE (2)}$	$V_{CE} = -2\text{ V}, I_C = -3\text{ A}$	140	200	—	
Collector-emitter saturation voltage	$V_{CE (sat)}$	$I_C = -3\text{ A}, I_B = -60\text{ mA}$	—	-0.25	-0.50	V
Base-emitter voltage	V_{BE}	$V_{CE} = -2\text{ V}, I_C = -3\text{ A}$	—	-0.86	-1.2	V
Transition frequency	f_T	$V_{CE} = -2\text{ V}, I_C = -0.5\text{ A}$	—	180	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	50	—	pF

Marking



Explanation of Lot No.



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