TOSHIBA Transistor Silicon PNP Epitaxial Type

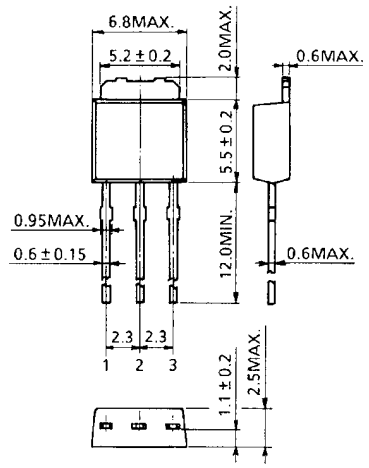
2SA1802

Strobe Flash Applications

Medium Power Amplifier Applications

- Excellent h_{FE} 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

Unit: mm



1. BASE
2. COLLECTOR (HEATSINK)
3. EMITTER

JEDEC	—
JEITA	—
TOSHIBA	2-7B1A

Weight: 0.36 g (typ.)

Maximum Ratings (Ta = 25°C)

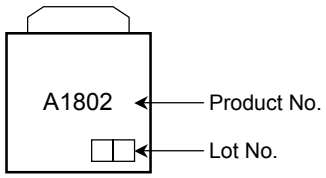
Characteristics		Symbol	Rating	Unit
Collector-base voltage		V_{CBO}	−30	V
Collector-emitter voltage		V_{CES}	−30	V
		V_{CEO}	−10	
Emitter-base voltage		V_{EBO}	−6	V
Collector current	DC	I_C	−3	A
	Pulsed (Note 1)	I_{CP}	−6	
Base current		I_B	−0.5	A
Collector power dissipation	Ta = 25°C	P_C	1.0	W
	Tc =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

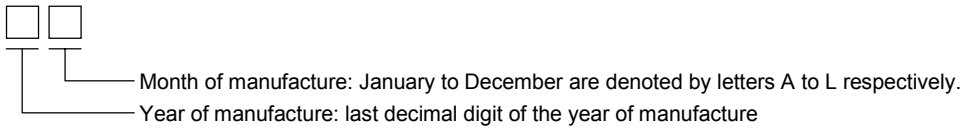
Electrical Characteristics (Ta = 25°C)

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

Marking



Explanation of Lot No.



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