

**DESCRIPTION**

The 2SB804-W, 2SB804-V, and 2SB804-U are available in the SOT-89 package.

ORDERING INFORMATION

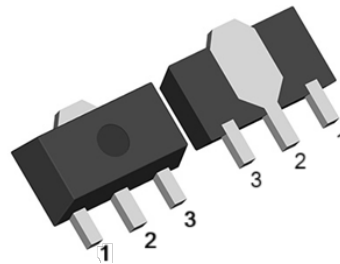
Package Type	Part Number
SOT-89	2SB804-W
	2SB804-V
	2SB804-U
SPQ	1,000pcs/Reel
AiT provides all RoHS Compliant Products	

 h_{FE} CLASSIFICATION

Rank	Range
W	90 ~ 180
V	135 ~ 270
U	200 ~ 400

FEATURE

- World standard micro packaging: SOT-89.
- High collector base voltage: $V_{CBO} > -100V$
- Excellent DC current gain linearity.

PIN DESCRIPTION

SOT-89

PIN#	DESCRIPTION
1	Base
2	Collector
3	Emitter

ABSOLUTE MAXIMUM RATINGS

$T_A = 25^\circ C$, unless otherwise specified.

V_{CBO} , Collector to Base Voltage	-100 V
V_{CEO} , Collector to Emitter Voltage	-80 V
V_{EBO} , Emitter to Base Voltage	-2 V
I_C , Collector Current	-1 A
I_C , Collector Current(pulse) ⁽¹⁾	-1.5 A
P_T , Total Power Dissipation	2 W
T_J , Junction Temperature	150 °C
T_{stg} , Storage Temperature Range	-55 ~ +150 °C

(1) $PW \leq 10$ ms, duty cycle $\leq 50\%$

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.



ELECTRICAL CHARACTERISTICS

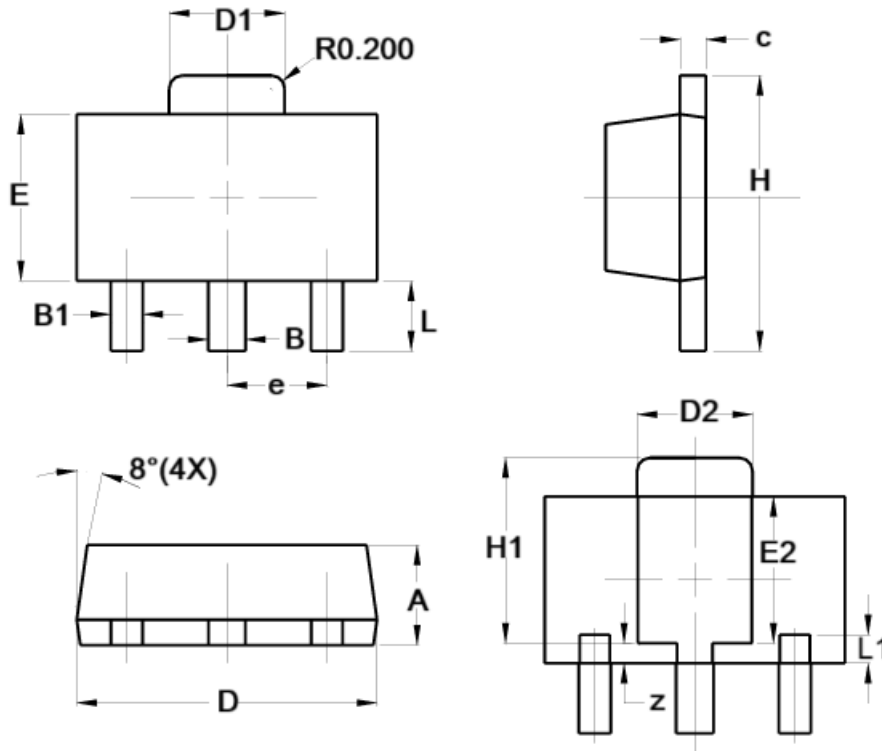
T_A=25°C unless otherwise specified.

Parameter	Symbols	Conditions	Min.	Typ.	Max.	Unit
Collector Cutoff Current	I _{CBO}	V _{CB} = -100 V, I _E = 0	-	-	-100	nA
Emitter Cutoff Current	I _{EBO}	V _{EB} = -5 V, I _C = 0	-	-	-100	nA
DC Current gain ⁽²⁾	h _{FE}	V _{CE} = -2 V, I _C = -100 mA	90	200	400	-
		V _{CE} = -2 V, I _C = -500 mA	25	80	-	
Collector Saturation Voltage ⁽²⁾	V _{CE(sat)}	I _C = -500 mA, I _B = -50 mA,	-	-0.29	-0.5	V
Base Saturation Voltage ⁽²⁾	V _{BE(sat)}	I _C = -500 mA, I _B = -50 mA,	-	-0.9	-1.5	V
Base-Emitter Voltage ⁽²⁾	V _{BE}	V _{CE} = -10 V, I _C = -10 mA	-600	-640	-700	V
Gain bandwidth product	f _T	V _{CE} = -5 V, I _E = -10 mA	-	80	-	MHz
Output Capacitance	C _{ob}	V _{CB} = -10 V, I _E = 0, f = 1 MHz	-	26	-	pF

(2) Pulsed: PW ≤ 350 μs, duty cycle ≤ 2%

**PACKAGE INFORMATION**

Dimension in SOT-89 (Unit: mm)



Symbol	Millimeter	
	Min.	Max.
A	1.400	1.600
B	0.500	0.620
B1	0.420	0.540
c	0.350	0.430
D	4.440	4.600
D1	1.620	1.830
D2	1.610	1.810
E	2.400	2.600
E2	2.050	2.350
e	1.500 TYP.	
H	3.950	4.250
H1	2.630	2.930
L	0.900	1.200
L1	0.327	0.527
z	0.200	0.400

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