

**DESCRIPTION**

The 2SB806-R, 2SB806-Q and 2SB806-P are available in the SOT-89 package.

FEATURE

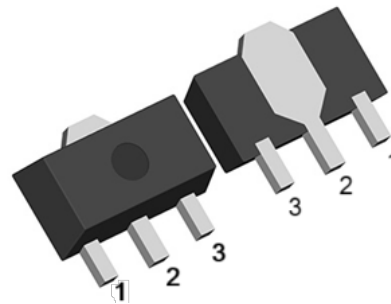
- High collector to emitter voltage: $V_{CEO} > -120V$.
- Excellent h_{FE} linearity.

ORDERING INFORMATION

Package Type	Part Number
SOT-89	2SB806-R
	2SB806-Q
	2SB806-P
SPQ	1,000pcs/Reel
AiT provides all RoHS Compliant Products	

 h_{FE} CLASSIFICATION

Rank	Range
R	90 ~ 180
Q	135 ~ 270
p	200 ~ 400

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	-120 V
V_{CEO} , Collector to Emitter Voltage	-120 V
V_{EBO} , Emitter to Base Voltage	-5 V
I_C , Collector Current-Continuous	-0.7 A
I_{CM} , Collector Current-Continuous (pulse)	-1.2 A
P_C , Collector Power Dissipation	2000 mW
T_J , Junction Temperature	150 $^{\circ}C$
T_{stg} , Storage Temperature	-55 ~ +150 $^{\circ}C$

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.



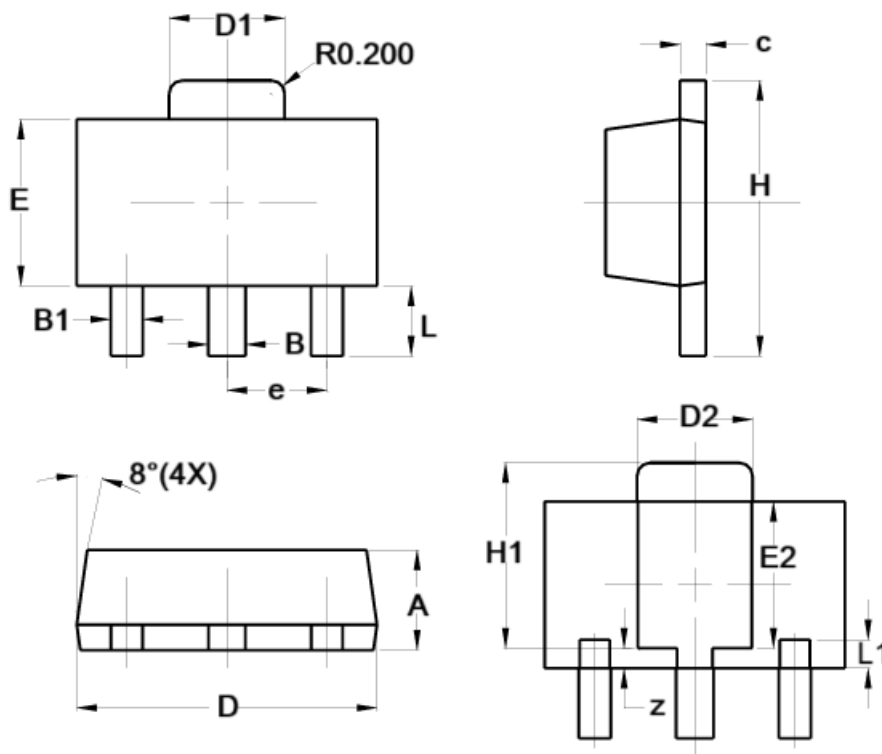
ELECTRICAL CHARACTERISTICS

$T_A=25^{\circ}\text{C}$ unless otherwise specified.

Parameter	Symbols	Conditions	Min.	Typ.	Max.	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = -120\text{ V},$ $I_E = 0$	-	-	-100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -5\text{ V},$ $I_C = 0$	-	-	-100	nA
DC Current gain	h_{FE}	$V_{CE} = -1\text{ V},$ $I_C = -100\text{ mA}$	90	200	400	-
		$V_{CE} = -1\text{ V},$ $I_C = -5\text{ mA}$	45	200	-	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -500\text{ mA},$ $I_B = -50\text{ mA},$	-	-0.4	-0.6	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -500\text{ mA},$ $I_B = -50\text{ mA},$	-	-0.9	-1.5	V
Transition frequency	f_T	$V_{CE} = -10\text{ V},$ $I_E = 10\text{ mA}$	-	75	-	MHz
Output Capacitance	C_{ob}	$V_{CB} = -10\text{ V},$ $I_E = 0,$ $f = 1\text{ MHz}$	-	14	-	pF

**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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