

**DESCRIPTION**

The 2SB1386-P, 2SB1386-Q and 2SB1386-R are available in the SOT-89 package.

ORDERING INFORMATION

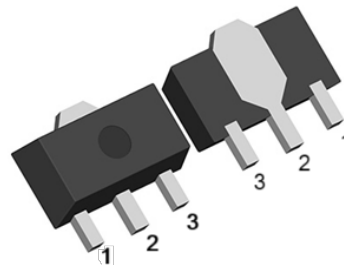
Package Type	Part Number
SOT-89	2SB1386-P
	2SB1386-Q
	2SB1386-R
SPQ	1,000pcs/Reel
AiT provides all RoHS Compliant Products	

h_{FE} CLASSIFICATION

Rank	Range
P	82 ~ 180
Q	120 ~ 270
R	180 ~ 390

FEATURE

- Low $V_{CE(sat)}$.
 $V_{CE(sat)} = -0.35V(Typ.)$
($I_C/I_B = -4A/ -0.1A$)
 - Excellent DC current gain
 - Epitaxial planar type
- PNP silicon transistor

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	-30 V
V_{CEO} , Collector to Emitter Voltage	-20 V
V_{EBO} , Emitter to Base Voltage	-6 V
I_C , Collector Current	-5 A
I_{CP} , Collector Current(pulse) ⁽¹⁾	-10 A
P_C , Collector Power Dissipation	0.5 W
T_J , Junction Temperature	150 °C
T_{stg} , Storage Temperature	-55 ~ +150 °C

(1) Single pulse, $PW = 10\text{ ms}$

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.

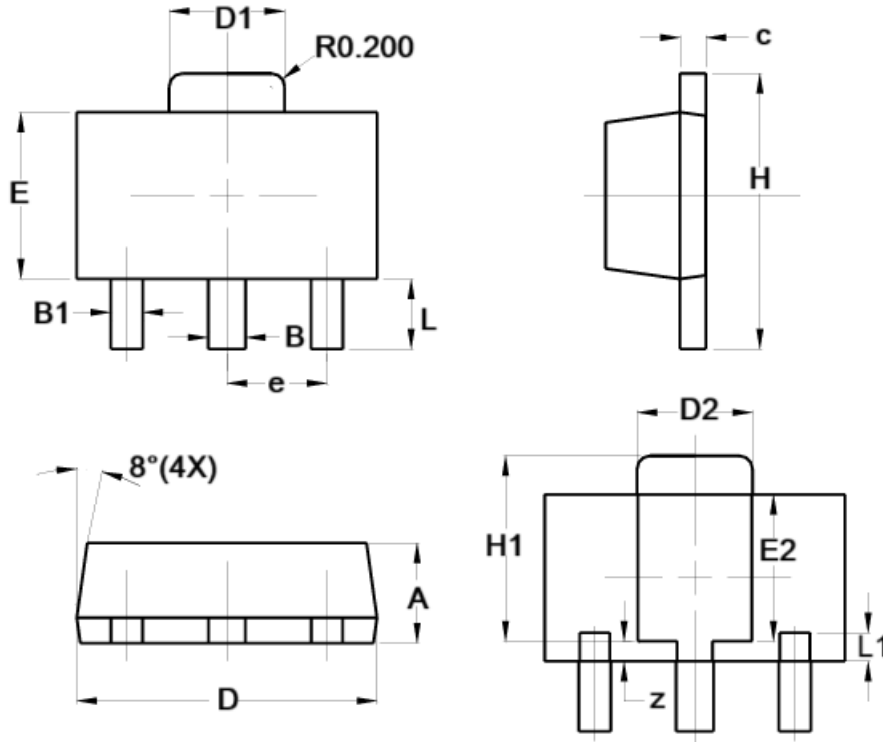
**ELECTRICAL CHARACTERISTICS** $T_A=25^{\circ}\text{C}$ unless otherwise specified.

Parameter	Symbols	Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = -50 \mu\text{A}$	-30	-	-	V
Collector-Emitter Breakdown voltage	BV_{CEO}	$I_C = -1 \text{ mA}$	-20	-	-	V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = -50 \mu\text{A}$	-6	-	-	V
Collector Cutoff Current	I_{CBO}	$V_{CB} = -20 \text{ V}$	-	-	-0.5	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -5 \text{ V}$	-	-	-0.5	μA
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C = -4 \text{ A},$ $I_B = -0.1 \text{ A},$	-	-	-1	V
DC Current Gain	h_{FE}	$V_{CE} = -2 \text{ V},$ $I_C = -0.5 \text{ A}$	82	-	390	
Transition Frequency	f_T	$V_{CB} = -20 \text{ V},$ $I_E = 0 \text{ A}$ $f = 1 \text{ MHz}$	-	120	-	MHz
Output Capacitance	C_{ob}	$V_{CE} = -6 \text{ V},$ $I_E = 50 \text{ mA},$ $f = 30 \text{ MHz}$	-	60	-	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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