



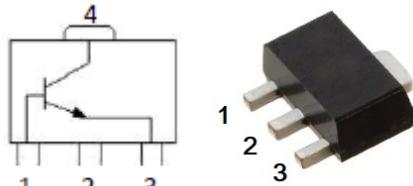
DESCRIPTION

The 2SD1898 is available in SOT89-3 package.

ORDERING INFORMATION

Package Type	Part Number
SOT89-3	2SD1898-Q
	2SD1898-R
Note	SPQ: 1,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION



SOT89-3

PIN#	DESCRIPTION
1	BASE
2	COLLECTOR
3	EMITTER

CLASSIFICATION OF h_{FE}

Part Number	h_{FE} Range
2SD1898-Q	120~270
2SD1898-R	180~390

ABSOLUTE MAXIMUM RATINGS

T_a = 25°C, unless otherwise specified

V_{CEO} , Collector-Emitter Voltage ($I_B=0$)	32V
V_{CBO} , Collector-Base Voltage ($I_E=0$)	40V
V_{EBO} , Emitter-Base Voltage ($I_C=0$)	6V
I_C , Collector Current	1A
P_{tot} , Total Power Dissipation ($T_A=25^\circ C$)*	1W
T_{jm} , Max Junction Temperature	150°C
T_{stg} , Storage Temperature	-55°C ~ + 150°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.

*Mounted on Printed Circuit Board.

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

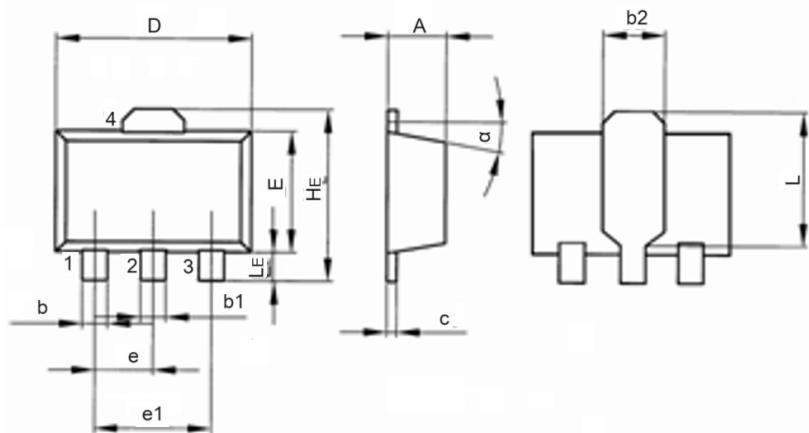
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Collector-Emitter Breakdown Voltage	$V_{(\text{BR})\text{CEO}}$	$I_C=2\text{mA}, I_E=0$	32	-	-	V
Collector-Base Breakdown Voltage	$V_{(\text{BR})\text{CBO}}$	$I_C=100\mu\text{A}, I_E=0$	40	-	-	V
Emitter-Base Breakdown Voltage	$V_{(\text{BR})\text{EBO}}$	$I_E=100\mu\text{A}, I_C=0$	6	-	-	V
Forward Current	h_{FE}	$V_{\text{CE}}=1\text{V}, I_C=100\text{mA}$	120	-	270	-
Transfer Ratio ⁽¹⁾			180	-	390	
Collector-Base Cut-Off Current	I_{CBO}	$V_{\text{CB}}= 35\text{V}, I_E=0$	-	-	100	nA
Emitter-Base Cut-Off Current	I_{EBO}	$V_{\text{EB}}= 6\text{V}, I_C=0$	-	-	100	nA
Collector-Emitter Saturation Voltage ⁽¹⁾	$V_{\text{CE}}(\text{sat})$	$I_C=800\text{mA}, I_B=80\text{mA}$	-	-	0.5	V
Transition Frequency	f_T	$I_C=50\text{mA}, V_{\text{CE}}=10\text{V}, f=100\text{MHz}$	-	100	-	MHz

(1) Pulse method : tw:300 μs , duty ratio $\leq 2\%$



PACKAGE INFORMATION

Dimension in SOT89-3 Package



SYMBOL	MILLIMETERS		
	Min.	Typ.	Max.
A	1.400	-	1.600
b	0.350	-	0.550
b1	0.400	-	0.650
b2	-	1.600	-
c	0.350	-	0.450
D	4.400	-	4.600
E	2.350	-	2.550
e	-	1.500	-
e1	-	3.000	-
H _E	-	4.150	-
L	-	2.700	-
L _E	-	1.000	-
α	-	5°	-



AiT Semiconductor Inc.

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2SD1898

TRANSISTORS

NPN GENERAL PURPOSE TRANSISTOR

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