

**DESCRIPTION**

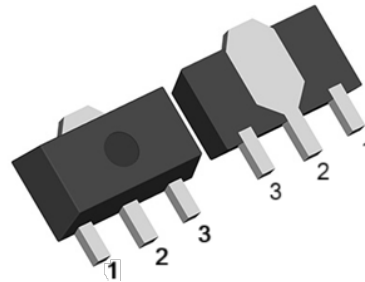
The 2SD2098-Q & 2SD2098-R are available in the SOT-89 package.

FEATURE

- Low $V_{CE(sat)}$
 $V_{CE(sat)} = 0.25V$ (Typ.) ($I_C/I_B = 4A/0.1A$).
- Excellent DC current gain characteristics.

ORDERING INFORMATION

Package Type	Part Number
SOT-89	2SD2098-Q
	2SD2098-R
SPQ	1,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION

SOT-89

 h_{FE} CLASSIFICATION

Rank	Range
Q	120 ~ 270
R	180 ~ 390

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	50 V
V_{CEO} , Collector to Emitter Voltage	20 V
V_{EBO} , Emitter to Base Voltage	6 V
I_C , Collector Current-Continuous	5 A
P_C , Collector Dissipation	0.5 W
T_J , Junction Temperature	150 °C
T_{stg} , Storage Temperature	-55 ~ +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.



ELECTRICAL CHARACTERISTICS

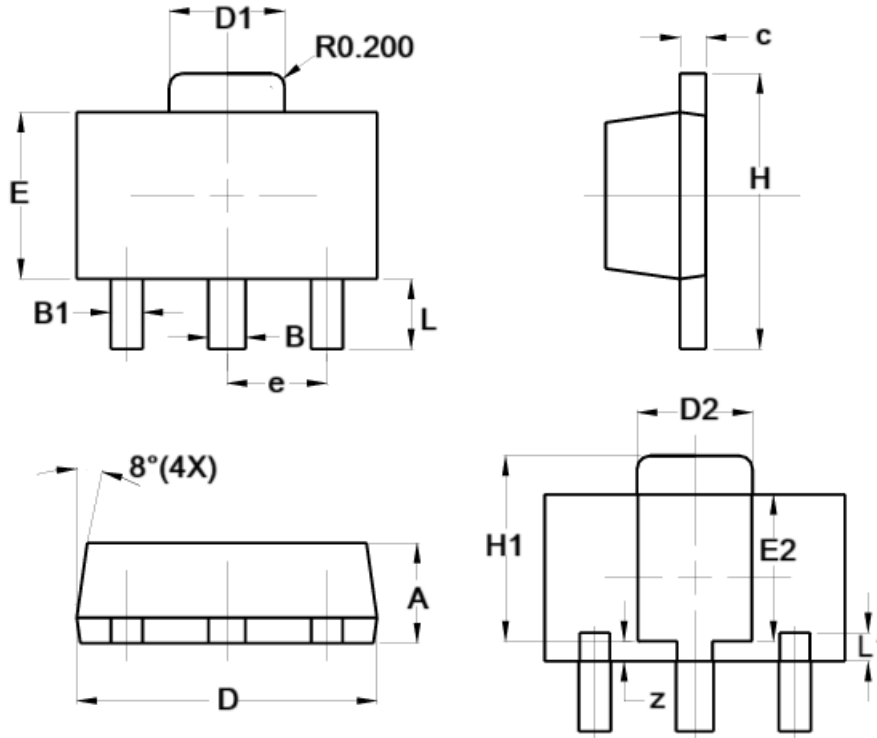
T_A=25°C unless otherwise specified.

Parameter	Symbols	Conditions	Min.	Typ.	Max.	Unit
Collector-Emitter Breakdown voltage	V _{(BR)CEO}	I _C = 50 μA, I _B = 0	20	-	-	V
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C = 1000 μA, I _E = 0	50	-	-	V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E = 50 μA, I _C = 0	6	-	-	V
Collector Cutoff Current	I _{CBO}	V _{CB} = 40 V, I _E = 0	-	-	0.5	μA
Emitter cutoff current	I _{EBO}	V _{EB} = 5V	-	-2	0.5	μA
DC Current Gain	h _{FE}	V _{CE} = 2 V, I _C = 0.5 A	180	--	390	-
Collector-Emitter saturation voltage	V _{CE (sat)}	I _C = 4 A, I _B = 0.1 A	-	-	0.5	V
Transition Frequency	f _T	V _{CE} = 6 V, I _E = -50 mA f = 100 MHz	-	150	-	MHz
Output Capacitance	C _{ob}	V _{CE} =20V, I _E =0A , f=1Mhz	-	30	-	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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