

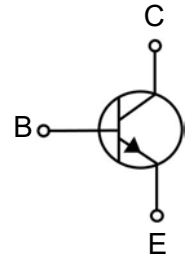
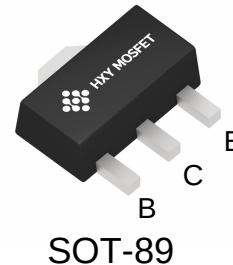


Features

IC = 5A Continuous Collector Current
500mW Power Dissipation

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
2SD2098T100R	SOT-89	AHR	1000



Maximum Ratings (Ta=25°C unless otherwise noted)

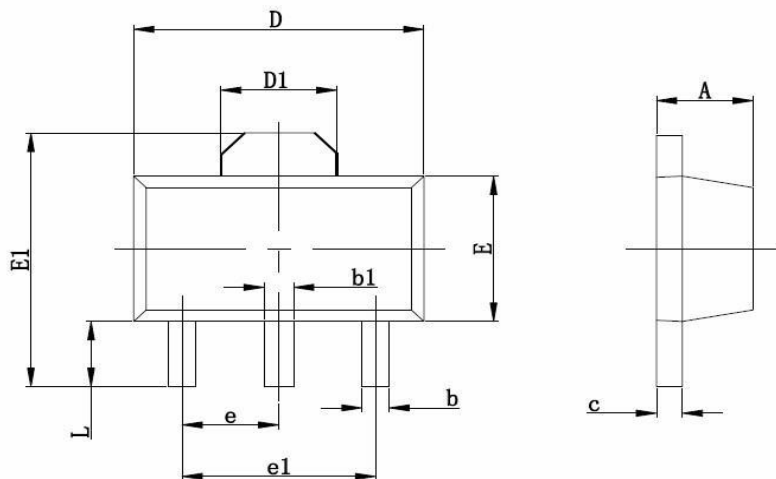
Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	50	V
V _{CEO}	Collector-Emitter Voltage	20	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current -Continuous	5	A
P _C	Collector Power Dissipation	500	mW
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~150	°C

Electrical Characteristics (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =50μA, I _E =0	50			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	20			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =50μA, I _C =0	6			V
Collector cut-off current	I _{CBO}	V _{CB} =40V, I _E =0			0.5	μA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0			0.5	μA
DC current gain	h _{FE}	V _{CE} =2V, I _C =0.5A	180		390	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =4A, I _B =100mA			1	V
Transition frequency	f _T	V _{CE} =6V, I _C =50mA, f=100MHz		150		MHz
Collector output capacitance	C _{ob}	V _{CB} =20V, I _E =0, f=1MHz		30		pF



SOT-89 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047



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