



Low $V_{CE(sat)}$ transistor(80V,0.7A)

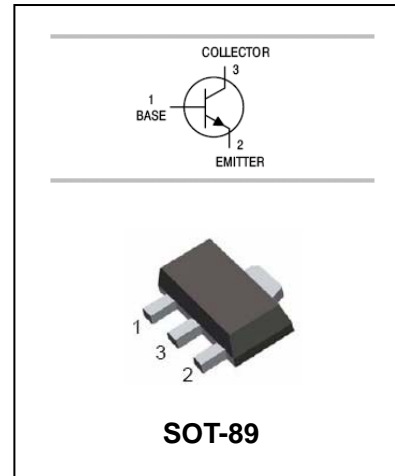
2SD2908

FEATURES

- Low $V_{CE(sat)}$.
- Excellent DC current gain characteristics.
- Complements the 2SB1386



Lead-free



ORDERING INFORMATION

Type No.	Marking	Package Code
2SD2098	AHQ/AHR	SOT-89

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
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 Dissipation	500	mW
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	°C



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=50\mu\text{A}, I_E=0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=50\mu\text{A}, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=40\text{V}, I_E=0$			0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			0.5	μA
DC current gain	h_{FE}	$V_{CE}=2\text{V}, I_C=0.5\text{A}$	120		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=4\text{A}, I_B=0.1\text{A}$		0.25	1.0	V
Transition frequency	f_T	$V_{CE}=6\text{V}, I_C=50\text{mA}, f=100\text{MHz}$		150		MHz
Collector output capacitance	C_{ob}	$V_{CB}=20\text{V}, I_E=0, f=1\text{MHz}$		30		pF

CLASSIFICATION OF h_{FE}

Rank	Q	R
Range	120-270	180-390
MARKING	AHQ	AHR

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

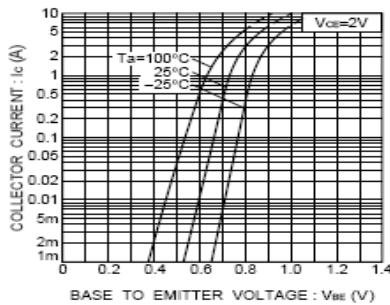


Fig. 1 Grounded emitter propagation characteristics

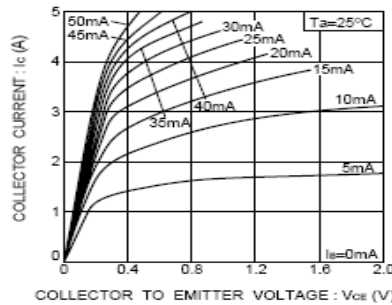


Fig. 2 Grounded emitter output characteristics

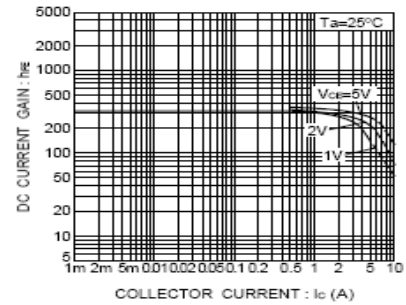


Fig. 3 DC current gain vs. collector current (I)

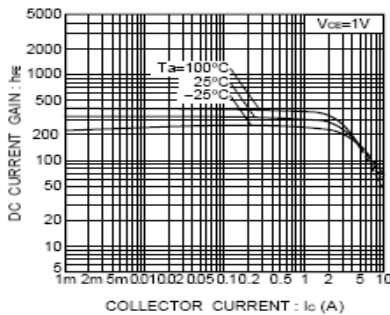


Fig. 4 DC current gain vs. collector current (II)

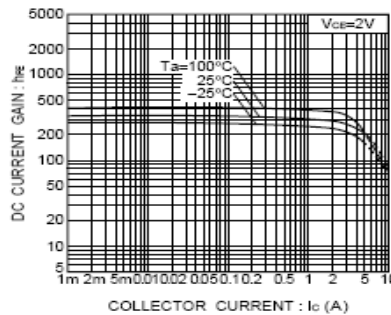


Fig. 5 DC current gain vs. collector current (III)

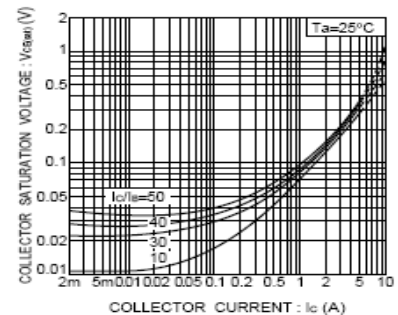


Fig. 6 Collector-emitter saturation voltage vs. collector current (I)



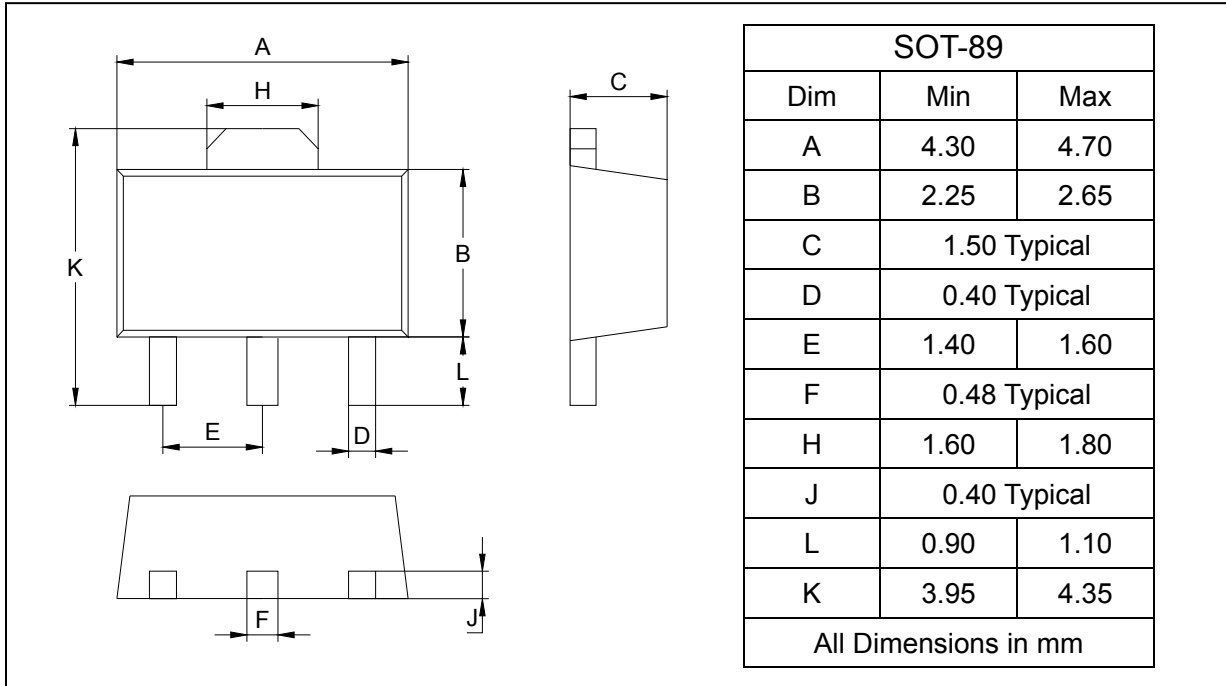
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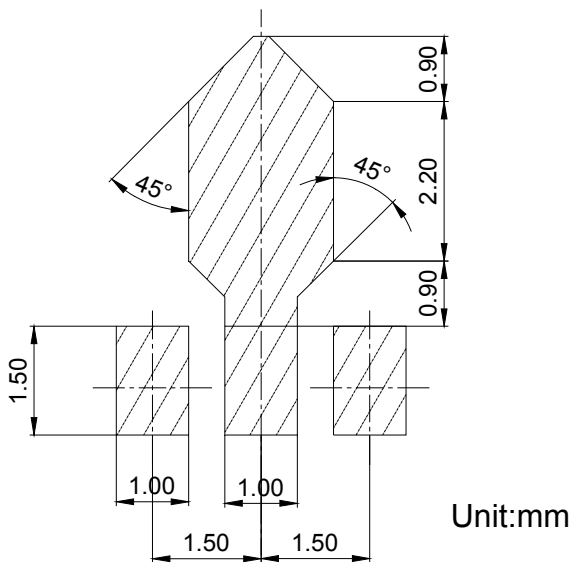
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SD2908	SOT-89	1000/Tape&Reel