



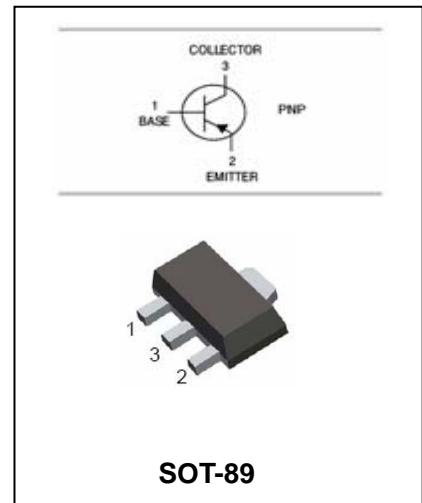
DONGGUAN NANJING ELECTRONICS LTD.,

Power Transistor(-50V,-3A)

2SB1308

FEATURES

- Low saturation voltage, typically
 $V_{CE(sat)} = -0.45(\text{Max})$ at $I_C/I_B = -1.5A/-0.15A$
- Excellent DC current gain characteristics.
- Complementary the 2SD1963.



ORDERING INFORMATION

Type No.	Marking	Package Code
2SB1308	BFP/BFQ/BFR	SOT-89

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current -DC -Pulse	-3 -5	A
P_C	Collector power Dissipation	0.5	W
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	°C

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -50\mu A$ $I_E = 0$	-30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA$ $I_B = 0$	-20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -50\mu A$ $I_C = 0$	-6			V
Collector cut-off current	I_{CBO}	$V_{CB} = -20V$ $I_E = 0$			-0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V$, $I_C = 0$			-0.5	μA
DC current gain	h_{FE}	$V_{CE} = -2V$ $I_C = -0.5A$	82		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1.5A$ $I_B = -0.15A$			-0.45	V
Transition frequency	f_T	$V_{CE} = -6V$, $I_E = -50mA$, $f = 100MHz$		120		MHz
Output Capacitance	C_{obo}	$V_{CB} = -20V$ $f = 1MHz$ $I_E = 0$		60		pF

CLASSIFICATION h_{FE}

Rank	P	Q	R
Range	82-180	120-270	180-390
Marking	BFP	BFQ	BFR

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

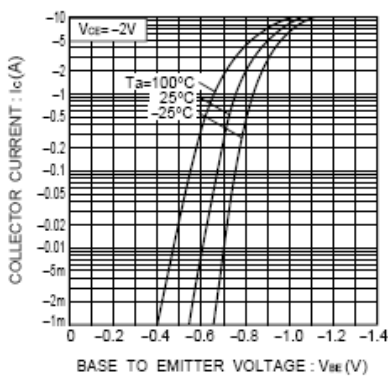


Fig.1 Grounded emitter propagation characteristics

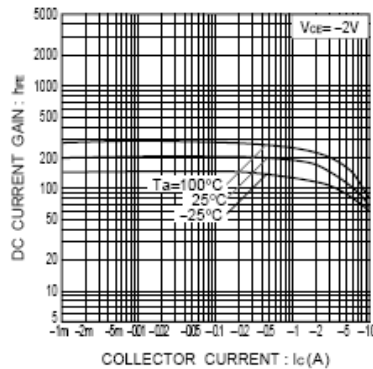


Fig.2 DC current gain vs. collector current

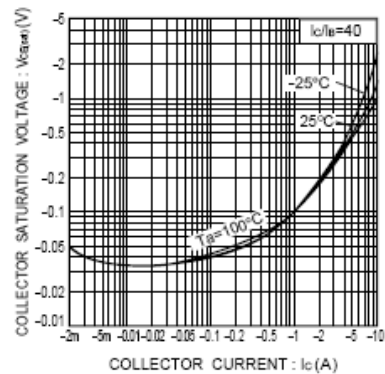


Fig.3 Collector-emitter saturation voltage vs. collector current

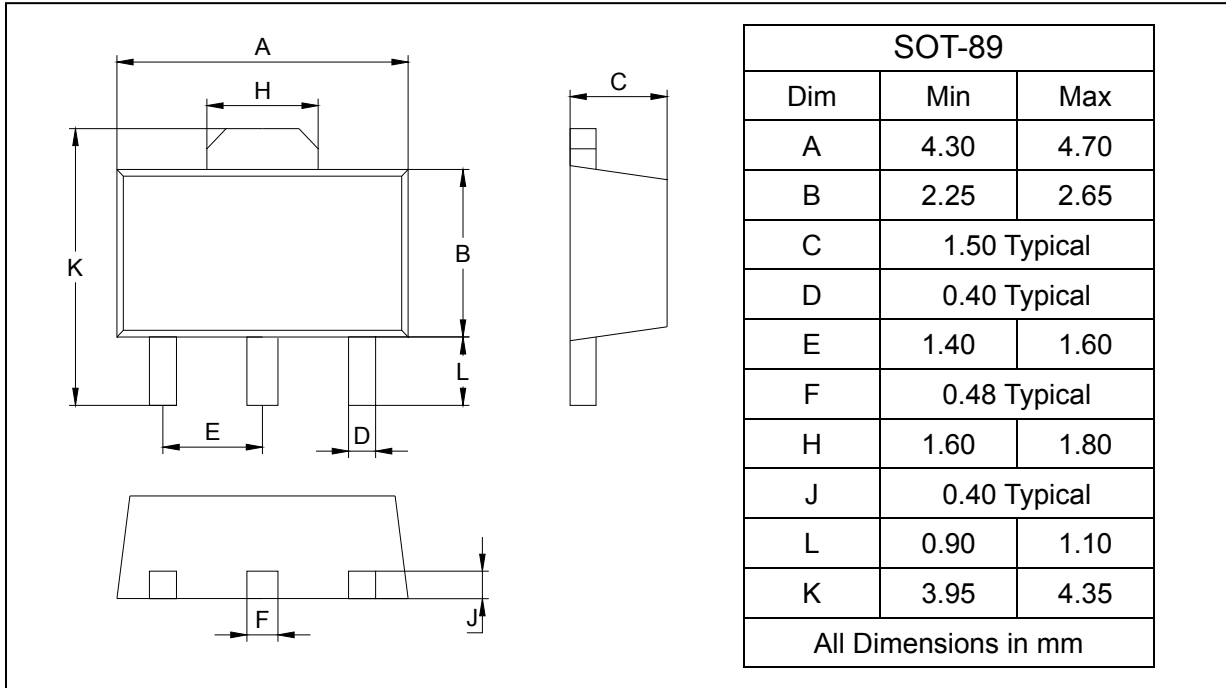
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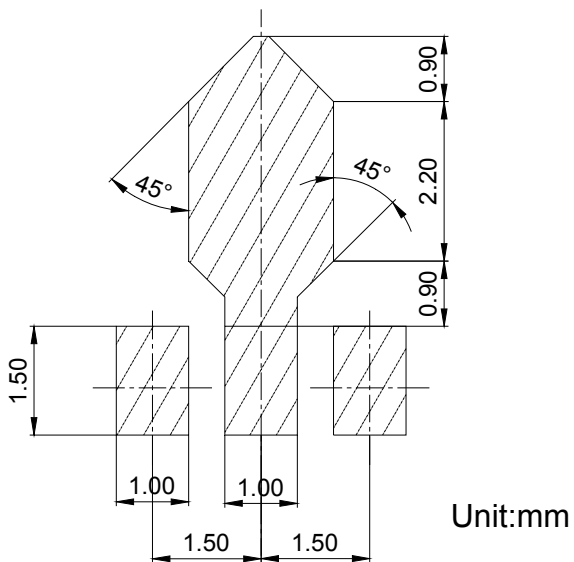
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SB1308	SOT-89	1000/Tape&Reel