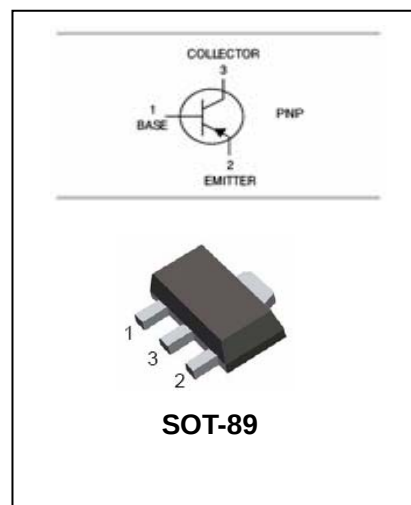


PNP General Purpose Amplifier

2SB1132

FEATURES

- Low $V_{CE(SAT)} = -0.2V$ (Typ.)
($I_C/I_B = -500mA/-50mA$).
- Complementary NPN type available
2SD1664.



APPLICATIONS

- This device is designed as a general purpose amplifier and switching.

ORDERING INFORMATION

Type No.	Marking	Package Code
2SB1132	BAP/BAQ/BAR	SOT-89

MAXIMUM RATING @ $T_a = 25^\circ C$ unless otherwise specified

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-32	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current –DC –Pulse	-1 -2	A
P_D	Total Device Dissipation	500	mW
$R_{\theta JA}$	Thermal resistance, Junction-to-Ambient	250	$^\circ C/W$
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	$^\circ C$



PNP General Purpose Amplifier

2SB1132

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -50\mu A$ $I_E = 0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA$ $I_B = 0$	-32			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -50\mu A$ $I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -20V$ $I_E = 0$			-0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4V$, $I_C = 0$			-0.5	μA
DC current gain	h_{FE}	$V_{CE} = -3V$ $I_C = -100mA$	82		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500mA$ $I_B = -50mA$		-0.2	-0.5	V
Transition frequency	f_T	$V_{CE} = -5V$, $I_C = -50mA$, $f = 30MHz$		150		MHz
Output Capacitance	C_{obo}	$V_{CB} = -10V$ $f = 1.0MHz$ $I_E = 0$	-	20	30	pF

CLASSIFICATION h_{FE}

Rank	P	Q	R
Range	82-180	120-270	180-390
Marking	BAP	BAQ	BAR

PNP General Purpose Amplifier

2SB1132

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

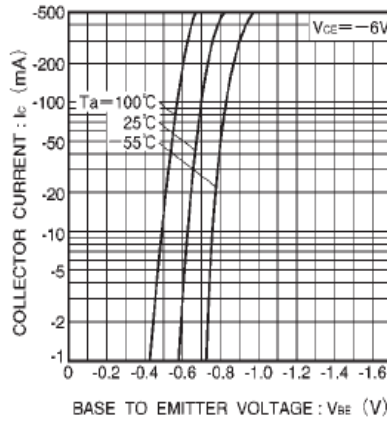


Fig.1 Grounded emitter propagation characteristics

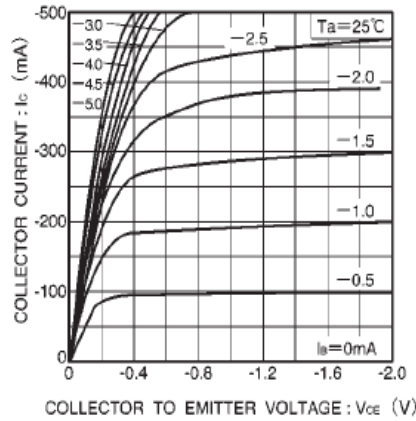


Fig.2 Grounded emitter output characteristics

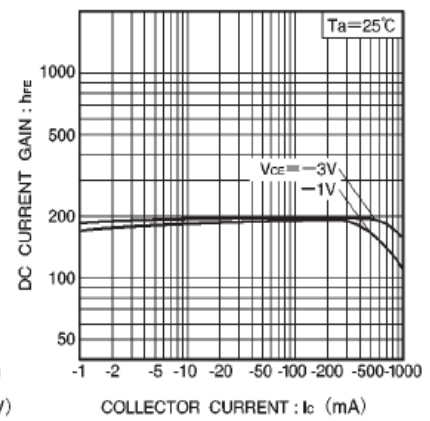


Fig.3 DC current gain vs. collector current (I)

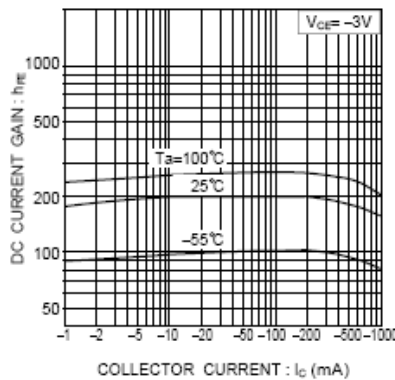


Fig.4 DC current gain vs. collector current(II)

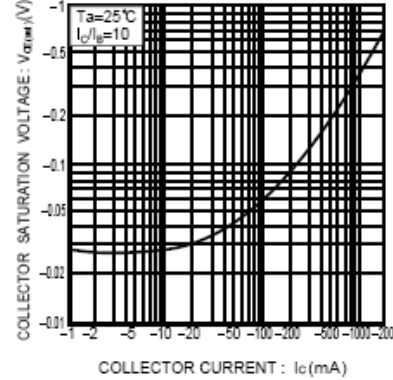


Fig.5 Collector-emitter saturation voltage vs. collector current

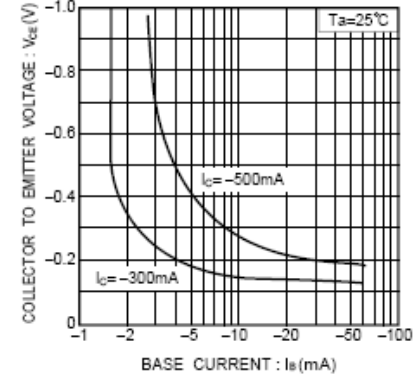


Fig.6 Collector-emitter saturation voltage vs. base current

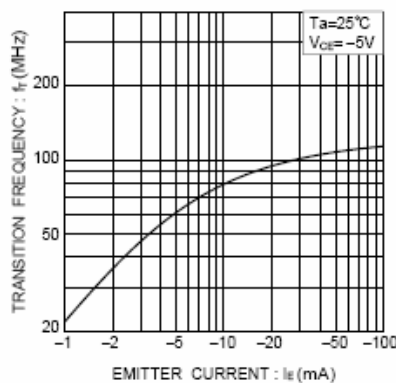


Fig.7 Gain bandwidth product vs. emitter current

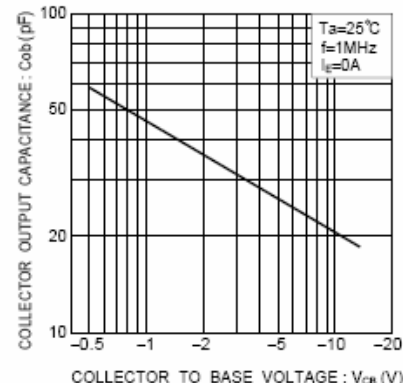


Fig.8 Collector output capacitance vs. collector-base voltage

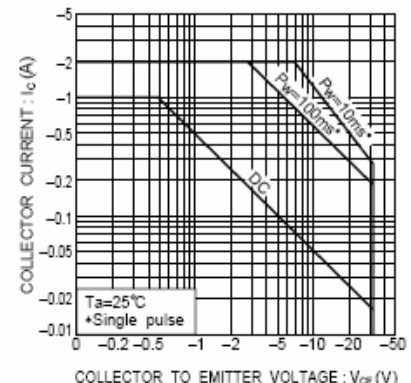


Fig.9 Safe operation area

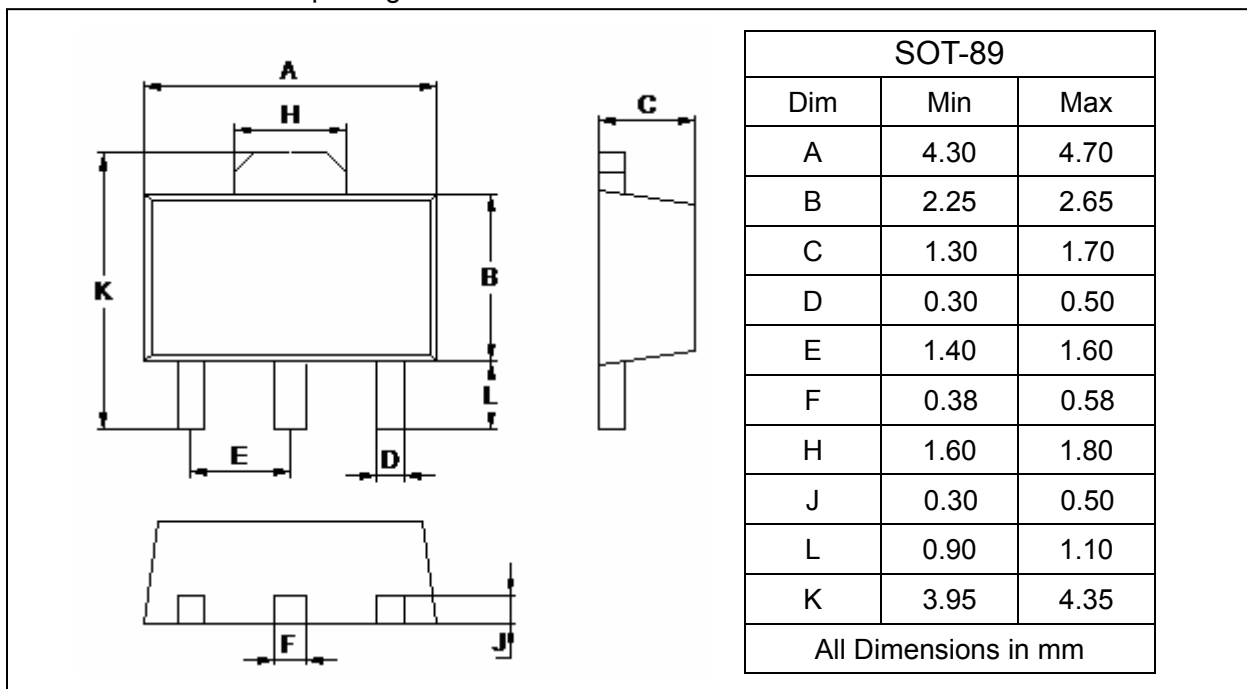
PNP General Purpose Amplifier

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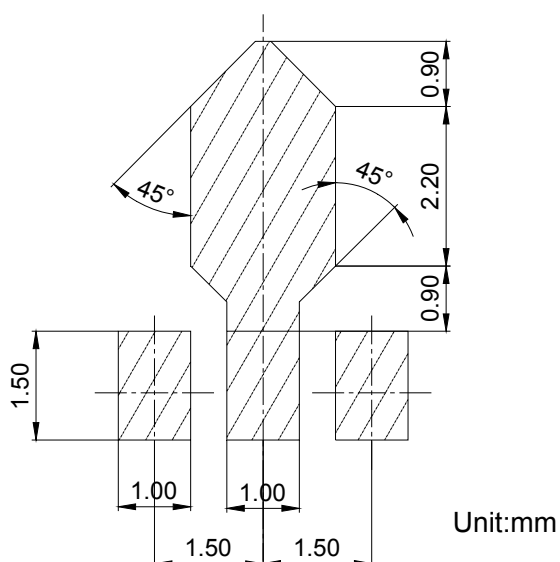
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SB1132	SOT-89	1000/Tape&Reel