

PNP Epitaxial Planar Silicon Transistors

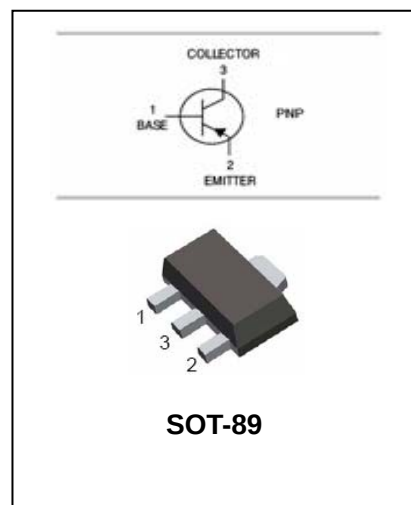
2SB798

FEATURES

- Low collector-emitter saturation voltage $V_{CE(sat)} < -0.4V (I_C = -0.1A, I_B = -100mA)$
- Excellent DC Current Gain Linearity:
 $HFE = 100 \text{ TYP. } (V_{CE} = -1.0V, I_C = -0.1$



Lead-free



ORDERING INFORMATION

Type No.	Marking	Package Code
2SB798	KR/KQ/KP	SOT-89

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5.0	V
I_C	Collector Current (DC)	-1.0	A
	Pulse(Note1)	-1.5	A
P_C	Collector Dissipation(Note2)	2	W
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	$^\circ\text{C}$

Note:

- $PW \leq 10ms$, Duty Cycle $\leq 50\%$;
- When mounted on a ceramic substrate of $16cm^2 \times 0.7mm$;



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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -30V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.1	μA
DC current gain	h_{FE1}	$V_{CE} = -1V, I_C = -100mA$	90	200	400	
	h_{FE2}	$V_{CE} = -1V, I_C = -1A$	50	100		
Base to emitter voltage	V_{BE}	$V_{CE} = -6V, I_C = -10mA$	-600	-640	-700	mV
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1.0A, I_B = -0.1A$		-0.25	-0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1.0A, I_B = -0.1A$		-1.0	-1.2	V
Transition frequency	f_T	$V_{CE} = -6V, I_E = -10mA,$		110		MHz
Output Capacitance	C_{obo}	$V_{CB} = -6V, f = 1MHz, I_E = 0$		36		pF

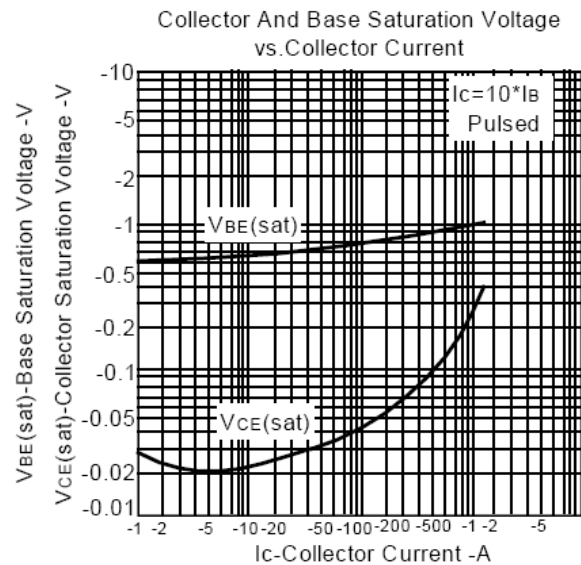
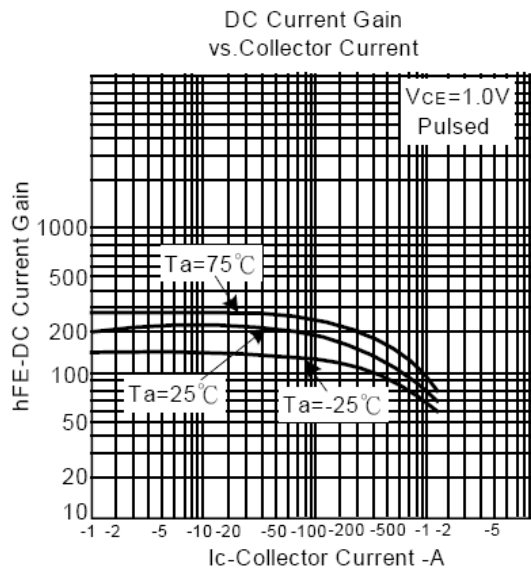
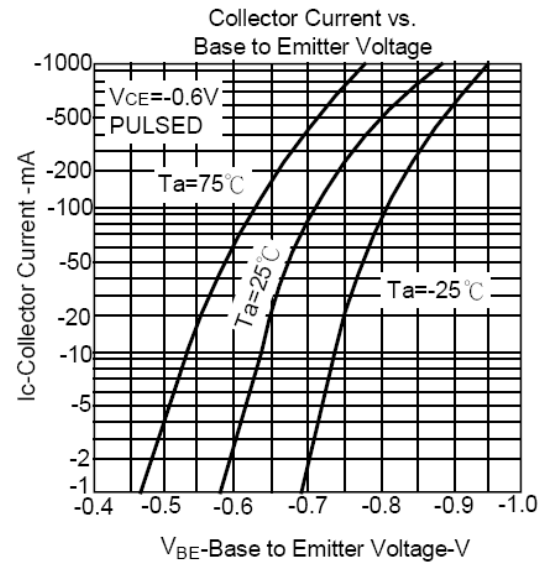
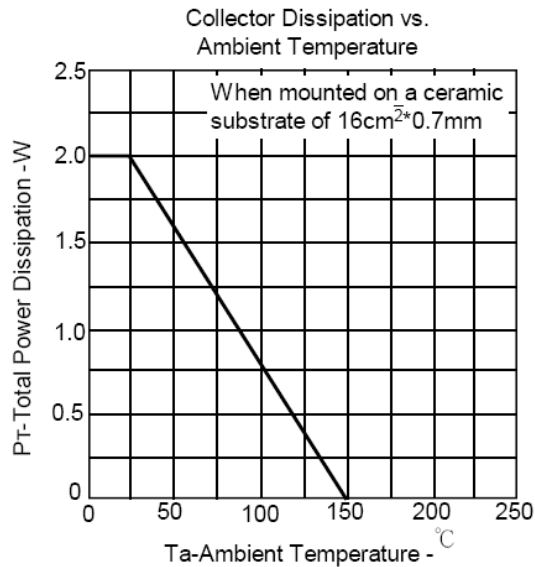
CLASSIFICATION OF h_{FE}

Marking	KR	KQ	KP
$h_{FE} 1$	90-180	135-270	200-400

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



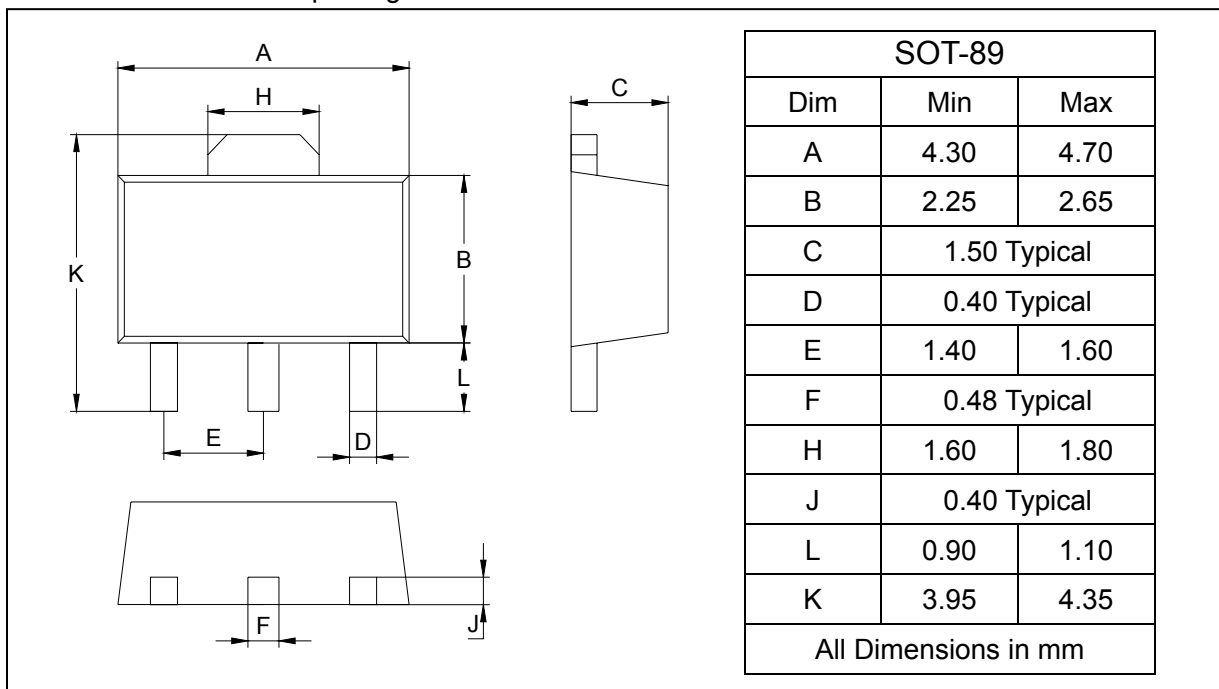
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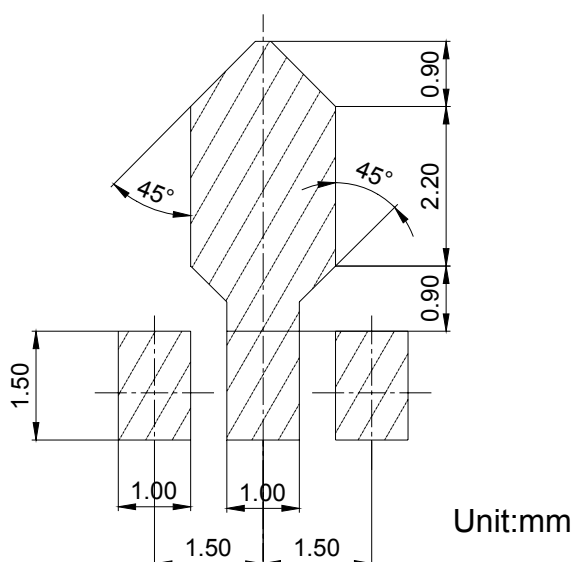
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SB798	SOT-89	1000/Tape&Reel