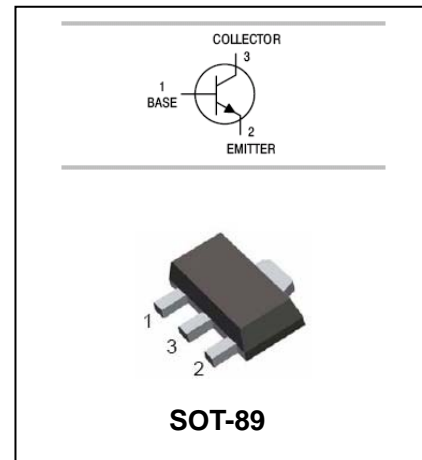


Silicon NPN epitaxial planer transistor

2SB766A

FEATURES

- Large collector power dissipation P_C .
- Mini Power type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.



ORDERING INFORMATION

Type No.	Marking	Package Code
2SB766A	BQ/BR/BS	SOT-89

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base voltage	60	V
V_{CEO}	Collector-Emitter voltage	50	V
V_{EBO}	Emitter-Base voltage	5	V
I_C	Collector current	1	A
I_{CP}	Peak collector current	1.5	A
P_C	Collector power dissipation	1	W
T_j, T_{stg}	Junction and storage temperature	-55 to +150	$^\circ\text{C}$

Silicon NPN epitaxial planer transistor

2SB766A

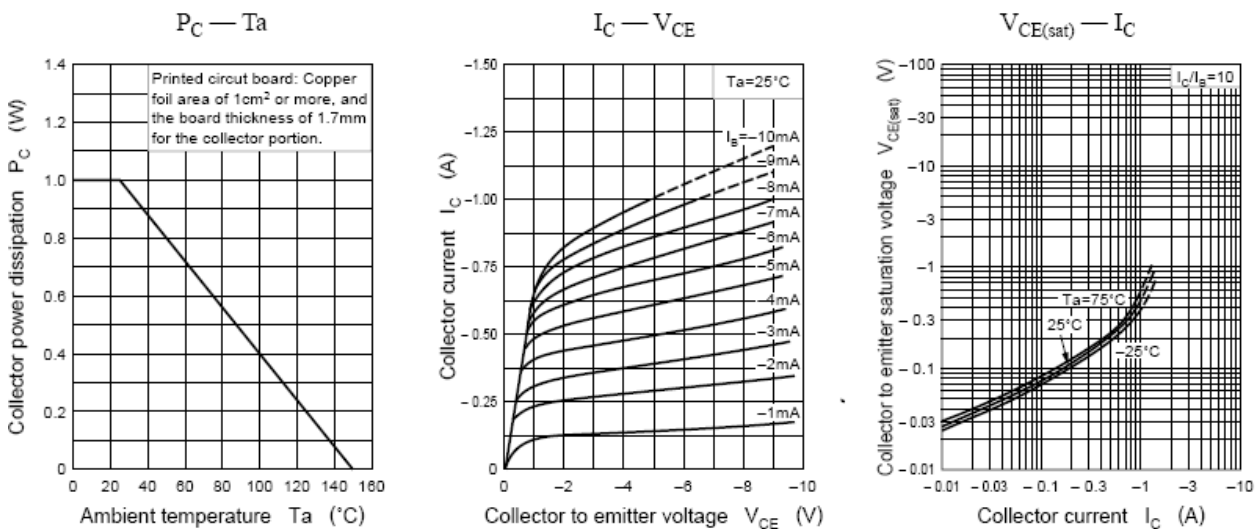
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN		MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A$ $I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=2mA$ $I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A$ $I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=20V$ $I_E=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=10V$ $I_C=500mA$	85		340	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA$ $I_B=50mA$		0.2	0.4	V
Base- emitter saturation voltage	$V_{BE(sat)}$	$I_C=500mA$ $I_B=50mA$		0.85	1.2	V
Transition frequency	f_T	$V_{CE}=10V, I_C=50mA,$ $f=200MHz$		200		MHz
Collector Output Capacitance	C_{obo}	$V_{CB}=10V$ $f=1.0MHz$ $I_E=0$		20	30	pF

CLASSIFICATION h_{FE}

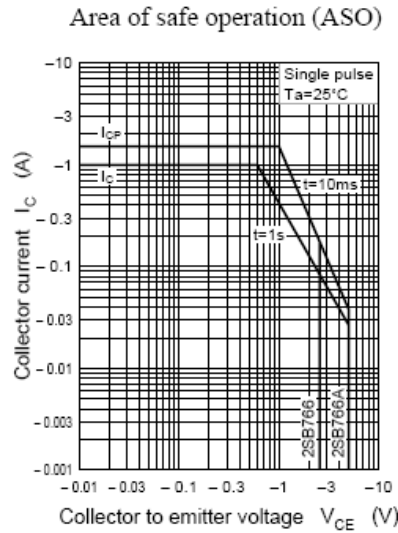
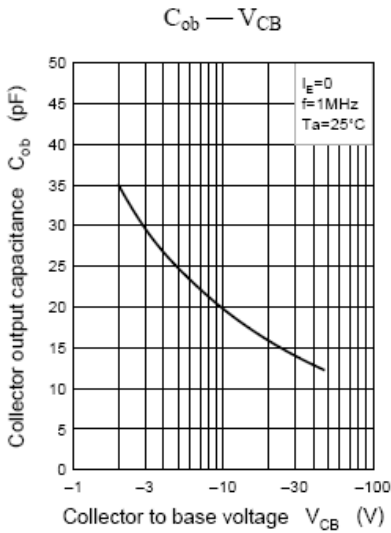
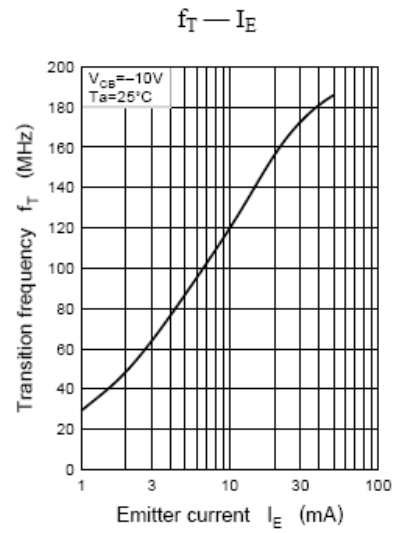
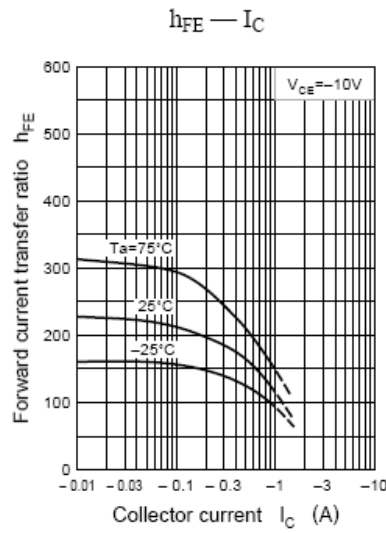
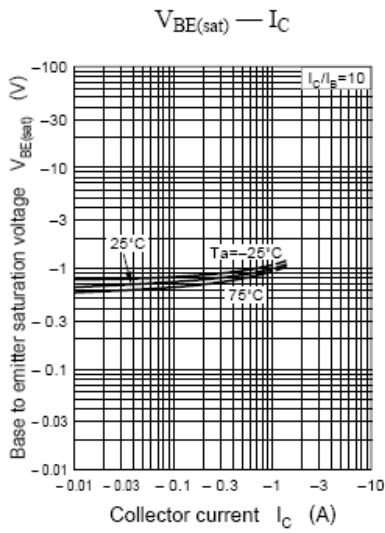
Rank	Q	R	S
Range	85-170	120-240	170-340
Marking	BQ	BR	BS

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



Silicon NPN epitaxial planer transistor

2SB766A



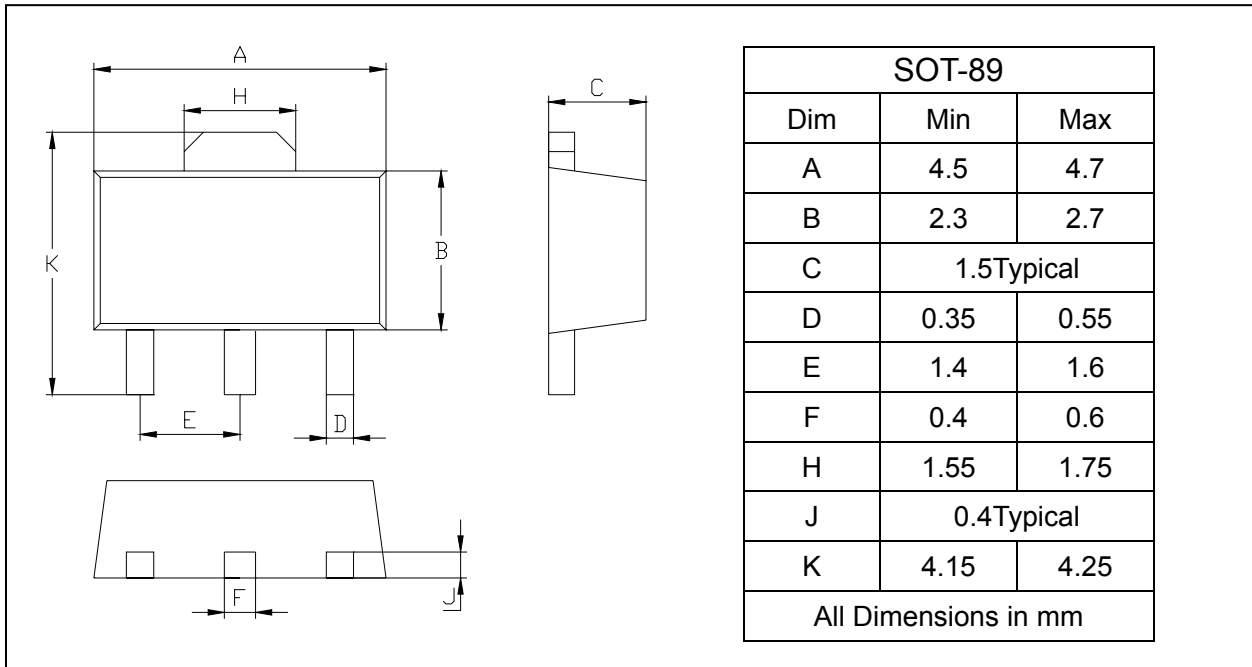
Silicon NPN epitaxial planer transistor

2SB766A

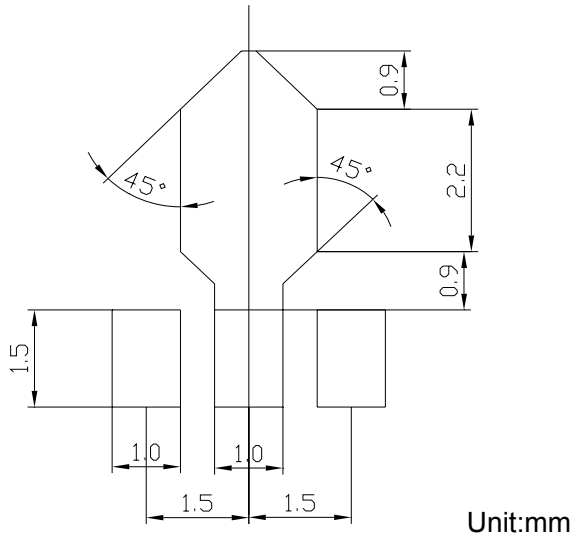
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SB766A	SOT-89	1000/Tape&Reel

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