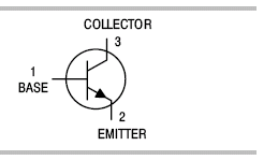
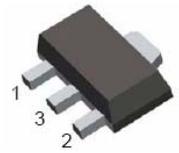
Silicon NPN epitaxial planer transistor 2SB766A

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.

Lead-free





SOT-89

ORDERING INFORMATION

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

MAXIMUM RATING @ Ta=25℃ 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	℃

Silicon NPN epitaxial planer transistor 2SB766A

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

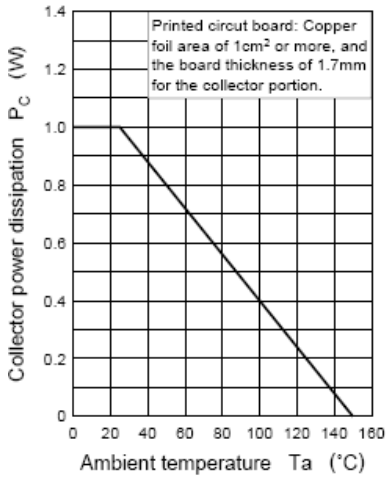
Parameter	Symbol	Test conditions	MIN		MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=10μA I_E=0	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=2mA I_B=0	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=20V I_E=0			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}

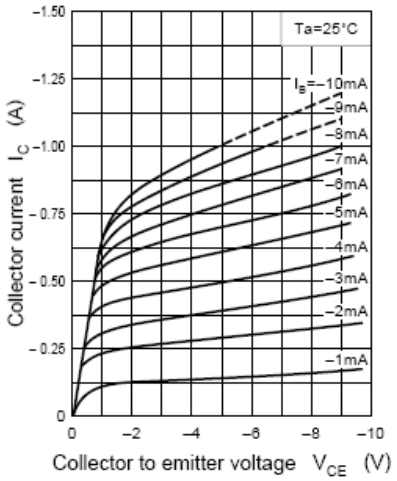
Rank	Q	R	S
Range	85-170	120-240	170-340
Marking	BQ	BR	BS

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

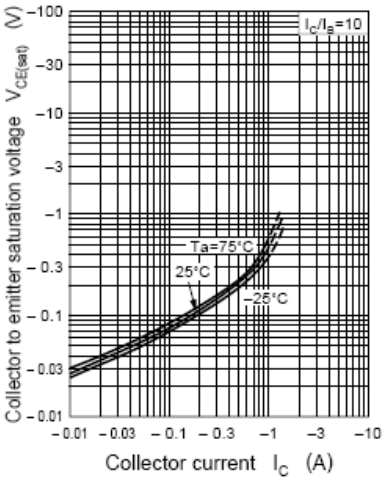
P_C — Ta



I_C — V_{CE}

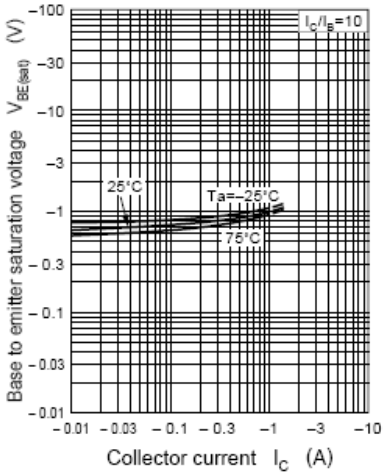


$V_{CE(sat)}$ — I_C

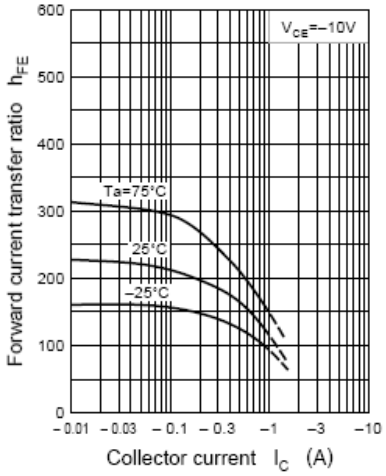


Silicon NPN epitaxial planer transistor 2SB766A

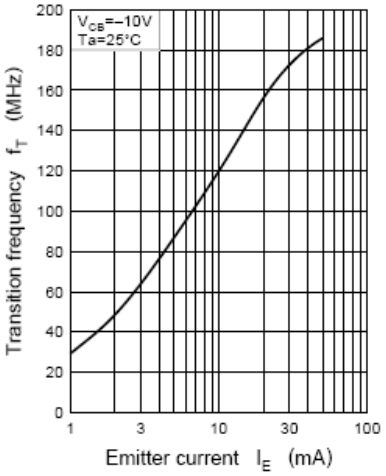
$V_{BE(sat)}$ — I_C



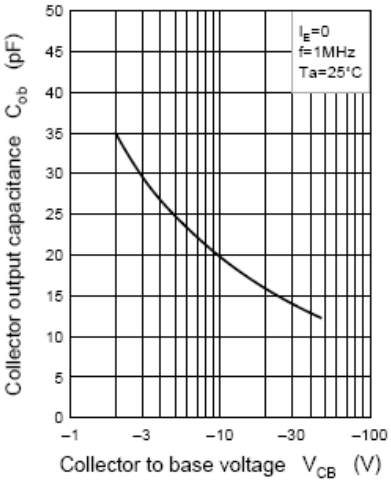
h_{FE} — I_C



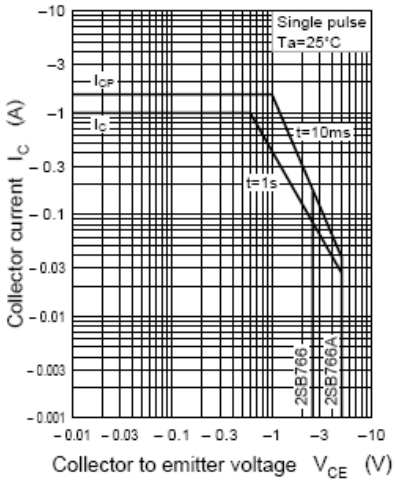
f_T — I_E



C_{ob} — V_{CB}



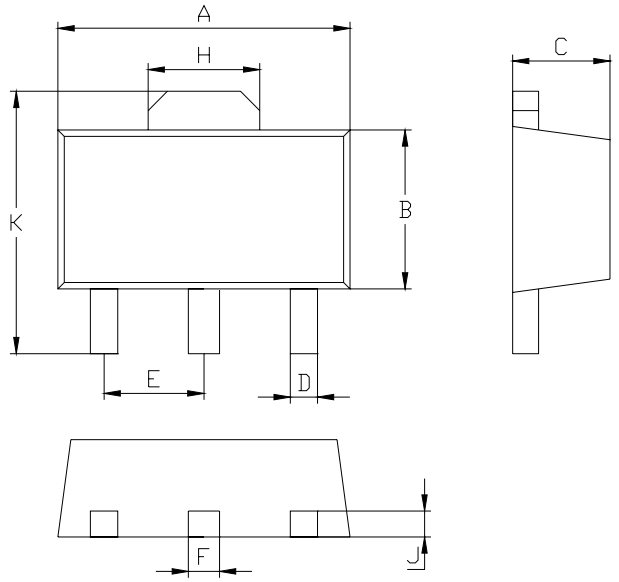
Area of safe operation (ASO)



Silicon NPN epitaxial planer transistor 2SB766A

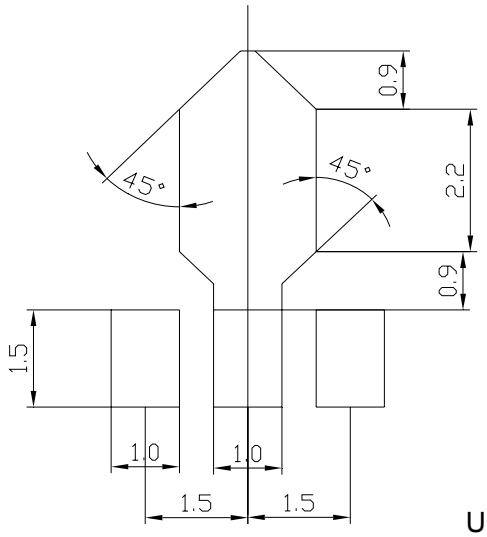
PACKAGE OUTLINE

Plastic surface mounted package SOT-89



SOT-89		
Dim	Min	Max
A	4.5	4.7
B	2.3	2.7
C	1.5Typical	
D	0.35	0.55
E	1.4	1.6
F	0.4	0.6
H	1.55	1.75
J	0.4Typical	
K	4.15	4.25
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit:mm

PACKAGE INFORMATION

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