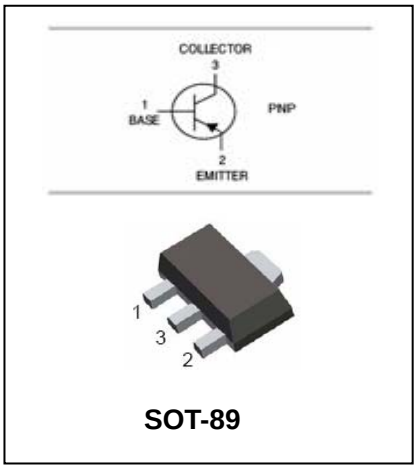
Silicon PNP epitaxial planer type 2SB1440

FEATURES

Lead-free

- Low collector-emitter saturation voltage $V_{CE(sat)}$.
- Mini Power type package,allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.
- Complementary the 2SD2185.



SOT-89

ORDERING INFORMATION

Type No.	Marking	Package Code
2SB1440	1L	SOT-89

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	**Parameter**	**Value**	**Unit**
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current –DC -Pulse	-2 -3	A
P_C	Collector power dissipation	1	W
T_j,T_{stg}	Junction and Storage Temperature	-55 to +150	℃

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ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

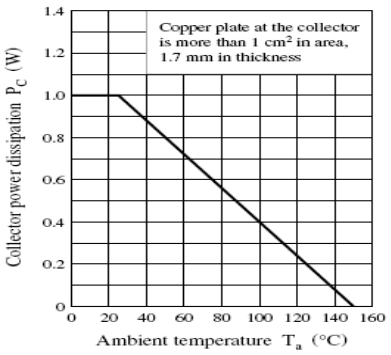
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-10μA I_E=0	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA I_B=0	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-10μA I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-20V I_E=0			-0.1	μA
DC current gain	h_{FE}	V_{CE}=-2V I_C=-0.2A	120		340	
		V_{CE}=-2V I_C=-1A	60			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-1A I_B=-50mA		-0.2	-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-1A I_B=-50mA		-0.85	-1.2	V
Transition frequency	f_T	V_{CE}=-10V,I_C=-50mA, f=200MHz		150		MHz
Output Capacitance	C_{obo}	V_{CB}=-10V f=1.0MHz I_E=0		45	60	pF

CLASSIFICATION H_{FE}

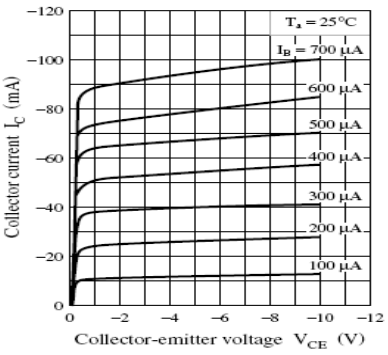
Rank	R	S
Range	120-240	170-340
Marking	1L	

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

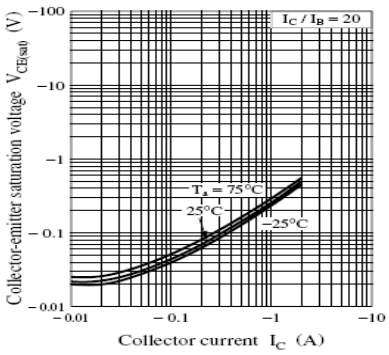
P_C — T_a



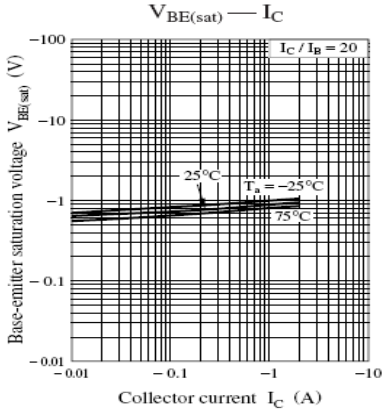
I_C — V_{CE}



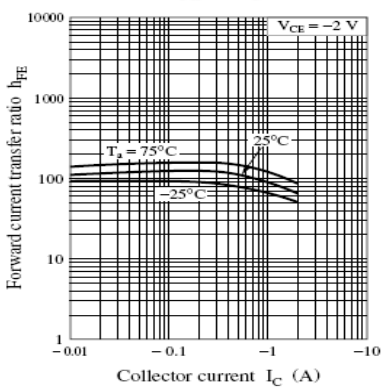
$V_{CE(sat)}$ — I_C



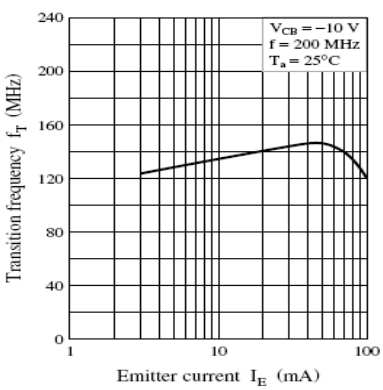
$V_{BE(sat)}$ — I_C



h_{FE} — I_C



f_T — I_E



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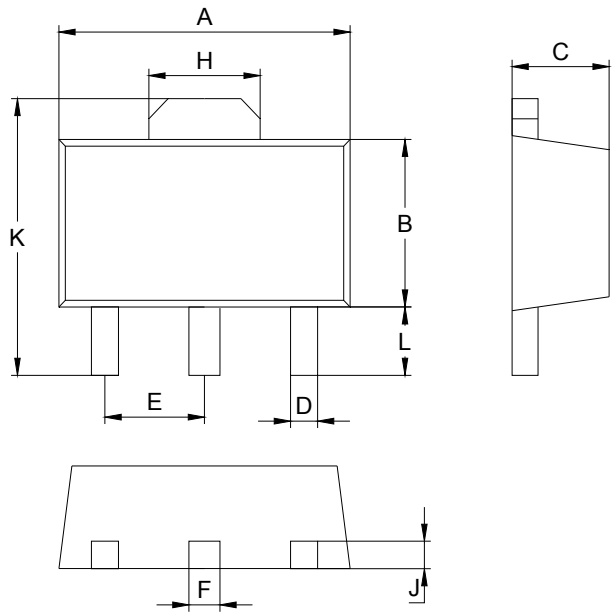
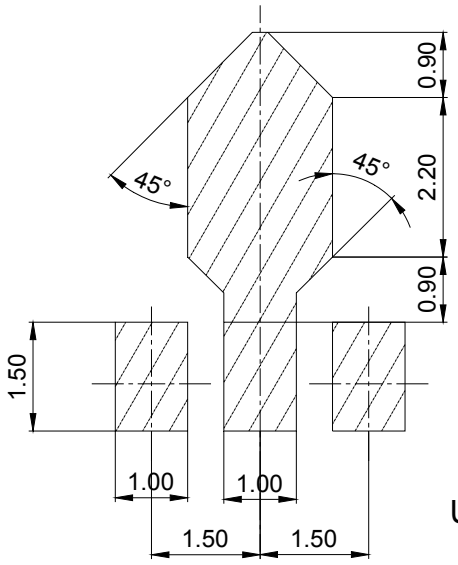
PACKAGE OUTLINE

Plastic surface mounted package SOT-89



SOT-89		
Dim	Min	Max
A	4.30	4.70
B	2.25	2.65
C	1.50 Typical	
D	0.40 Typical	
E	1.40	1.60
F	0.48 Typical	
H	1.60	1.80
J	0.40 Typical	
L	0.90	1.10
K	3.95	4.35
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit:mm

PACKAGE INFORMATION

Device	Package	Shipping
2SB1440	SOT-89	1000/Tape&Reel