

Silicon PNP epitaxial planer type

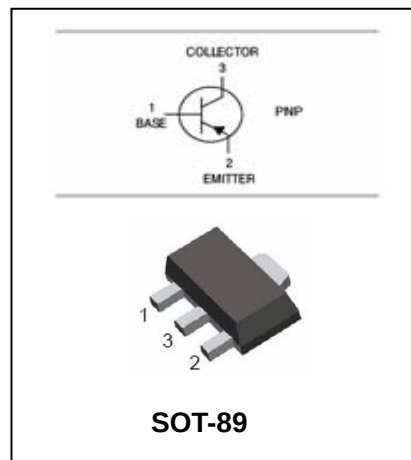
2SB1440

FEATURES

- 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.



Lead-free



ORDERING INFORMATION

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

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



Silicon PNP epitaxial planer type

2SB1440

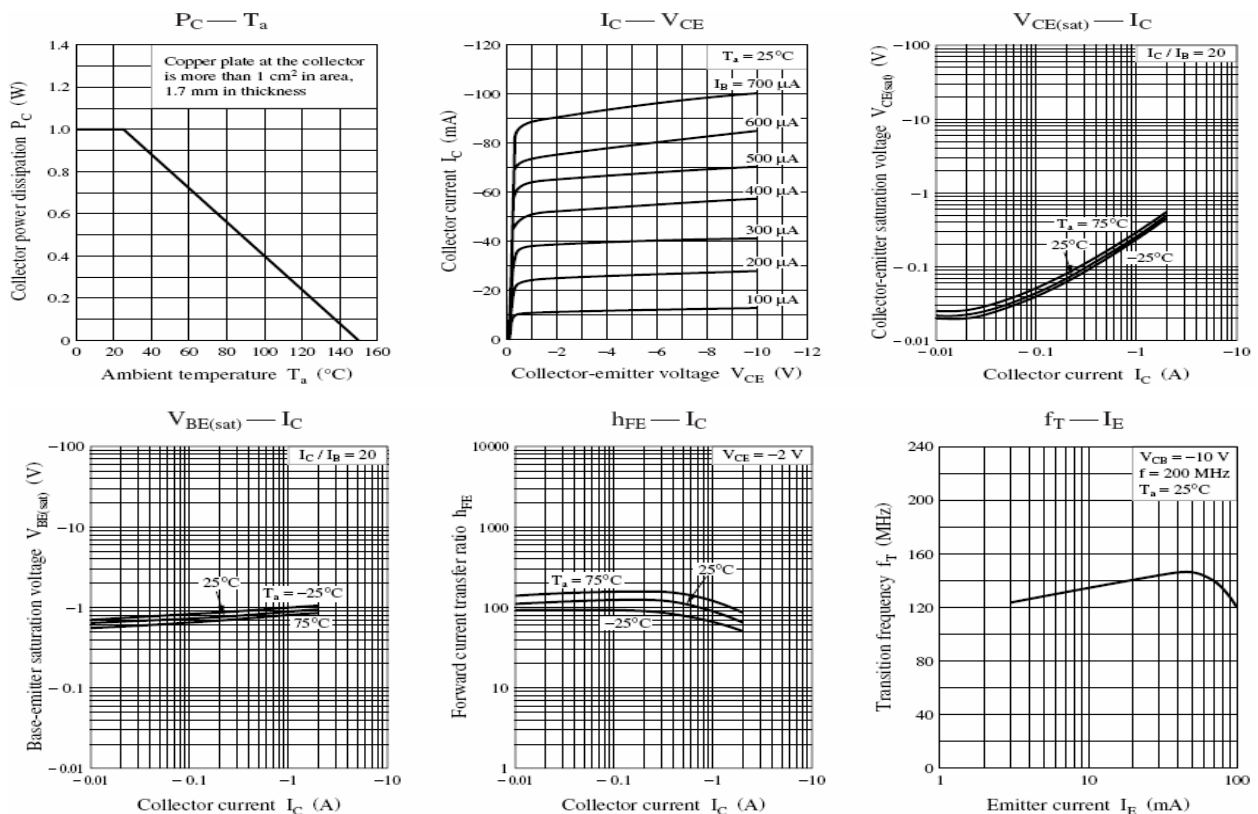
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu A$ $I_E = 0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA$ $I_B = 0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A$ $I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -20V$ $I_E = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -2V$ $I_C = -0.2A$	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°C unless otherwise specified



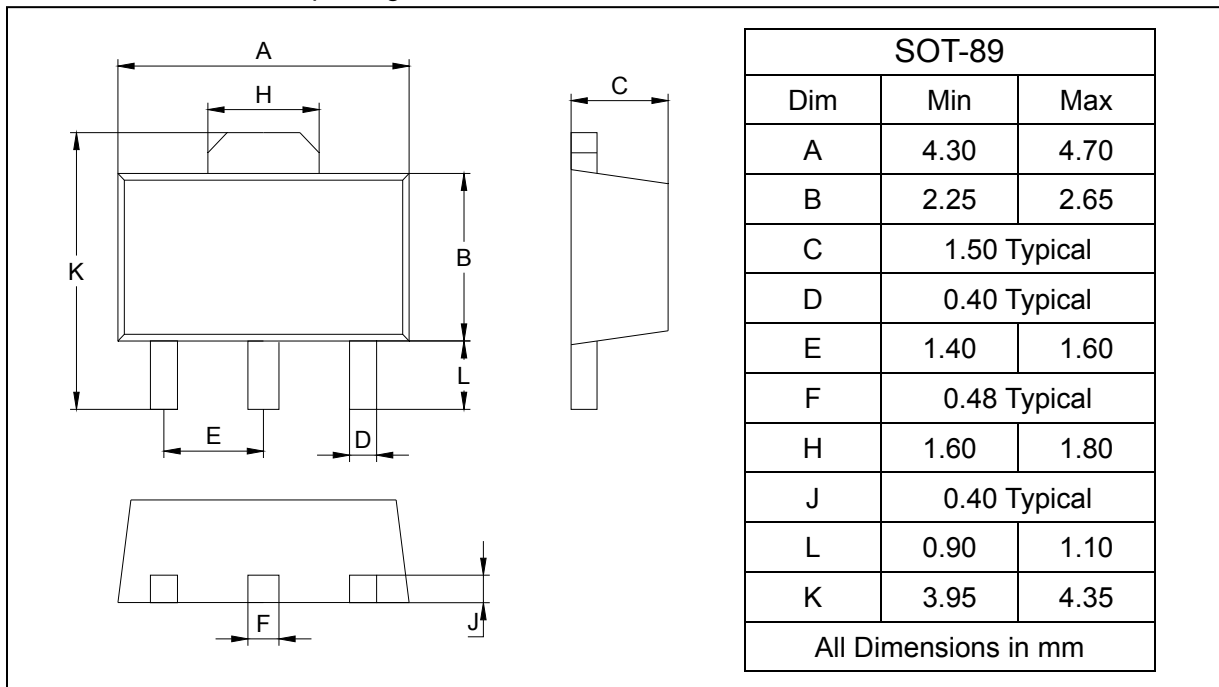
Silicon PNP epitaxial planer type

2SB1440

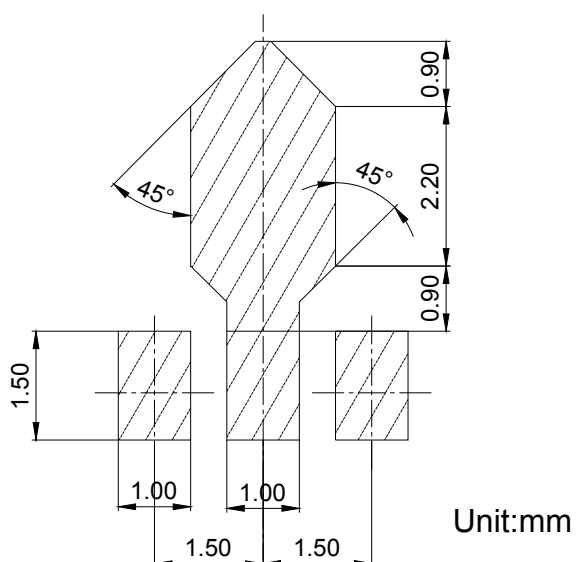
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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