Elektronische Bauelemente

2SB1440

-2 A, -50 V

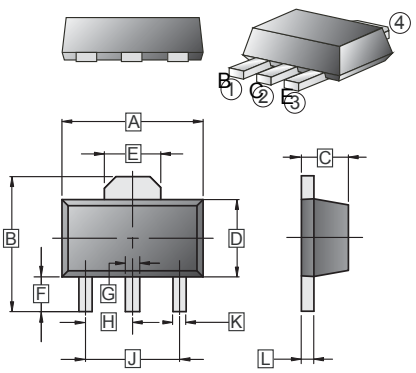
PNP Plastic Encapsulated Transistor

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- For low-frequency output amplification
- Complements to 2SD2185

SOT-89



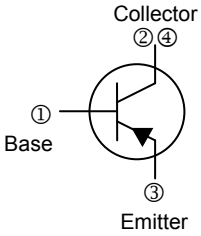
REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.40	4.60	G	0.40	0.58
B	3.94	4.25	H	1.50 TYP	
C	1.40	1.60	J	3.00 TYP	
D	2.30	2.60	K	0.32	0.52
E	1.50	1.70	L	0.35	0.44
F	0.89	1.20			

PACKAGE INFORMATION

Package	MPQ	LeaderSize
SOT-89	1K	7' inch

CLASSIFICATION OF h_{FE1}

Product	2SB1440-R	2SB1440-S
Range	120 - 240	170 - 340
Marking	1L	



ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current -Continuous	I_C	-2	A
Collector Power Dissipation	P_C	0.5	W
Junction & Storage Temperature	T_J, T_{STG}	150, -55~150	°C

PNP ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	-50	-	-	V	I_C= -10μA, I_E=0
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	-50	-	-	V	I_C= -1mA, I_B=0
Emitter-base breakdown voltage	$V_{(BR)EBO}$	-5	-	-	V	I_E= -10μA, I_C=0
Collector cut-off current	I_{CBO}	-	-	-1	μA	V_{CB}= -50V, I_E=0
Emitter cut-off current	I_{EBO}	-	-	-1	μA	V_{EB}= -5 V, I_C=0
DC current gain	h_{FE1}	120	-	340		V_{CE}= -2V, I_C= -200mA
	h_{FE2}	60	-	-		V_{CE}= -2V, I_C= -1A
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	-0.3	V	I_C= -1A, I_B= -50mA
Base-emitter saturation voltage	$V_{BE(sat)}$	-	-	-1.2	V	I_C= -1A, I_B= -50mA
Transition frequency	f_T	-	80	-	MHz	V_{CE}= -10V, I_C= -50mA, f=200MHz
Output Capacitance	C_{OB}	-	-	60	pF	V_{CB}= -10V, I_E=0, f=1MHz

Elektronische Bauelemente

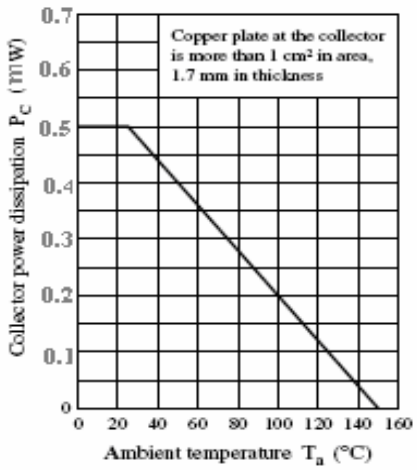
2SB1440

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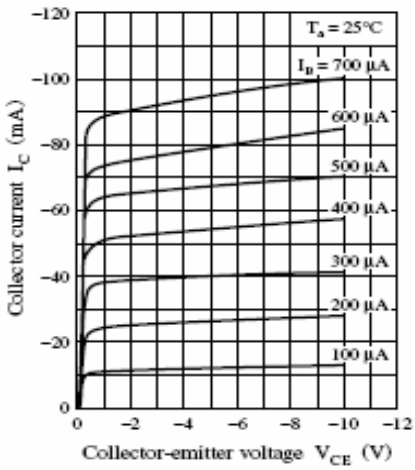
PNP Plastic Encapsulated Transistor

CHARACTERISTIC CURVES

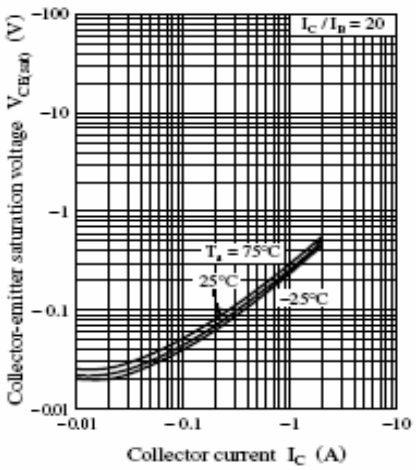
P_C — T_a



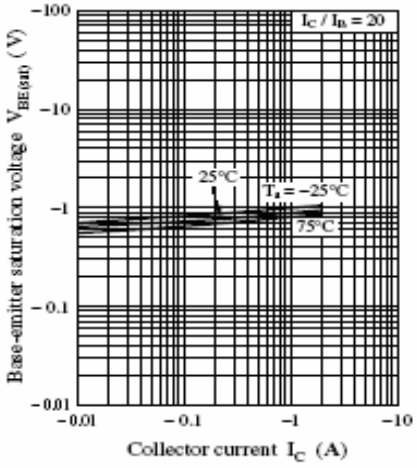
I_C — V_{CE}



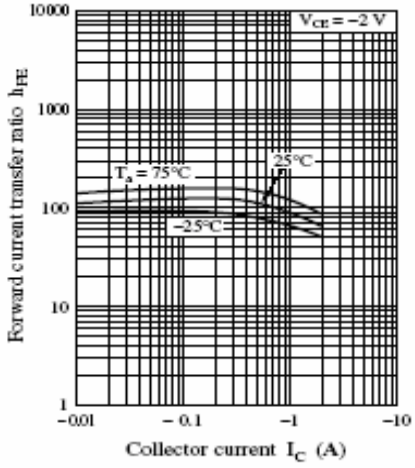
$V_{CE(sat)}$ — I_C



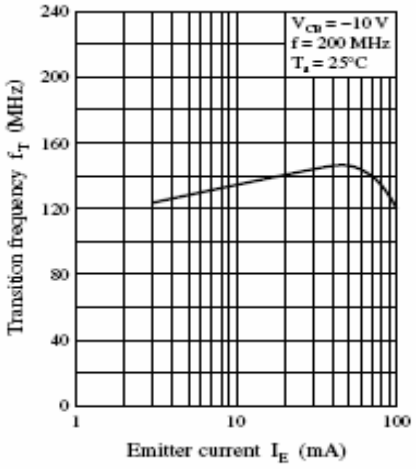
$V_{BE(sat)}$ — I_C



h_{FE} — I_C



f_T — I_E



C_{ob} — V_{CB}

