

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

DESCRIPTION

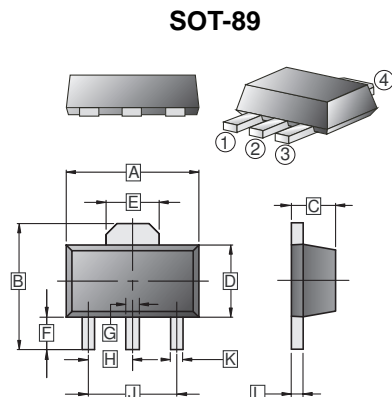
The 2SB1188 is designed for medium power amplifier applications.

FEATURES

- Low collector saturation voltage : $V_{CE(sat)} = -0.5V$ (Typ.)
- RoHS Compliant Product

CLASSIFICATION OF h_{FE}

Product-Rank	2SB1188-P	2SB1188-Q	2SB1188-R
Range	82~180	120~270	180~390
Marking	BCP	BCQ	BCR



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	1.2			

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-89	1K	7' inch

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ C$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-32	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current -Continuous	I_C	-2	A
Collector Power Dissipation	P_D	0.5 (2.0*)	W
Junction & Storage Temperature	T_J, T_{STG}	150, -55~150	$^\circ C$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ C$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	-40	-	-	V	$I_C = -50\mu A, I_E = 0$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	-32	-	-	V	$I_C = -1mA, I_B = 0$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	-5	-	-	V	$I_E = -50\mu A, I_C = 0$
Collector cut-off current	I_{CBO}	-	-	-1	μA	$V_{CB} = -20V, I_E = 0$
Emitter cut-off current	I_{EBO}	-	-	-1	μA	$V_{EB} = -4V, I_C = 0$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-500	-800	mV	$I_C = -2A, I_B = -200mA$
DC current gain	h_{FE}	82	-	390-		$V_{CE} = -3V, I_C = -500mA$
Transition frequency	f_T	-	150	-	MHz	$V_{CE} = -5V, I_C = -500mA, f = 30MHz$
Output Capacitance	C_{OB}	-	50	-	pF	$V_{CB} = -10V, I_E = 0, f = 1MHz$

- Pulse Test: Pulse Width $\leq 380\mu s$, Duty Cycle $\leq 2\%$

CHARACTERISTIC CURVES

