



Micro Commercial Components



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**2SB1188-P**  
**2SB1188-Q**  
**2SB1188-R**

## Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Power dissipation:  $P_{CM} = 0.5W(T_{amb}=25^{\circ}C)$
- Collector current:  $I_{CM} = -2A$
- Collector-base voltage:  $V_{(BR)CBO} = -40V$
- Operating and storage junction temperature range

$T_J, T_{stg}: -55^{\circ}C \text{ to } +150^{\circ}C$

- Halogen free available upon request by adding suffix "-HF"

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Unit
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C = -1mA, I_B = 0$ )	-32	---	---	V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C = -50 \mu A, I_E = 0$ )	-40	---	---	V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E = -50 \mu A, I_C = 0$ )	-5.0	---	---	V
$I_{CBO}$	Collector cut-off Current ( $V_{CB} = -20V, I_E = 0$ )	---	---	-1.0	$\mu A$
$I_{EBO}$	Emitter cut-off Current ( $V_{EB} = -4V, I_C = 0$ )	---	---	-1.0	$\mu A$
$h_{FE}$	DC current gain * ( $V_{CE} = -3V, I_C = -0.5A$ )	82	---	390	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage* ( $I_C = -2A, I_B = -0.2A$ )	---	---	-0.8	V
$f_T$	Transition Frequency ( $V_{CE} = -5.0Vdc, I_C = -0.5Adc, F = 30MHz$ )	---	80	---	MHZ
Cob	output capacitance ( $V_{CB} = -10V, I_E = 0, f = 1MHz$ )	---	---	65	PF

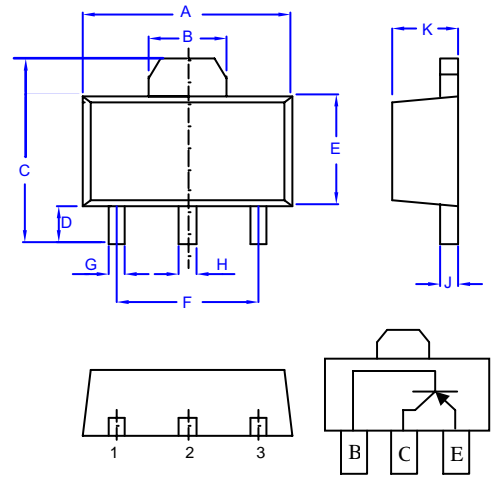
\* Measured using pulse current.

### CLASSIFICATION OF $h_{FE}$

Rank	P	Q	R
Range	82-180	120-270	180-390
Marking	BCP	BCQ	BCR

**PNP**  
**Plastic-Encapsulate**  
**Transistors**

## SOT-89



1. Base
2. Collector
3. Emitter

DIM	DIMENSINS				NOTES
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.173	.181	4.39	4.60	
B	.063	.071	1.60	1.80	
C	.154	.165	3.91	4.25	
D	.031	.039	0.80	1.00	
E	.092	.100	2.34	2.54	
F	.118	----	3.00	----	TYP
G	.013	.019	0.33	0.48	
H	.015	.021	0.38	0.53	
J	.015	.016	0.38	0.41	
K	.055	.063	1.40	1.60	



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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 1Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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