



Micro Commercial Components



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**2SB857-B**  
**2SB857-C**  
**2SB857-D**

## Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Low Frequency Power Amplifier
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

## Maximum Ratings

Symbol	Rating	Rating	Unit
$V_{CEO}$	Collector-Emitter Voltage	-50	V
$V_{CBO}$	Collector-Base Voltage	-70	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current	-4	A
$P_C$	Collector power dissipation	2.0	W
$T_J$	Junction Temperature	-55 to +150	°C
$T_{STG}$	Storage Temperature	-55 to +150	°C

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Type	Max	Units
<b>OFF CHARACTERISTICS</b>					
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=-50\text{mA}$ , $I_B=0$ )	-50	---	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=-10\text{mA}$ , $I_E=0$ )	-70	---	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E=-10\text{mA}$ , $I_C=0$ )	-5	---	---	Vdc
$I_{CBO}$	Collector-Base Cutoff Current ( $V_{CB}=-50\text{Vdc}$ , $I_E=0$ )	---	---	-1	$\mu\text{A}$
$I_{EBO}$	Emitter-Base Cutoff Current ( $V_{EB}=-5\text{Vdc}$ , $I_C=0$ )	---	---	-1	$\mu\text{A}$

## ON CHARACTERISTICS

$h_{FE}$	Forward Current Transfer ratio ( $I_C=-1\text{A}$ , $V_{CE}=-4\text{Vdc}$ )	60	---	200	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C=-2\text{mA}$ , $I_B=-200\text{mA}$ )	---	---	-1	Vdc
$V_{BE}$	Base-Emitter Voltage ( $I_C=-1\text{A}$ , $V_{CE}=-4\text{Vdc}$ )	---	---	-1	Vdc
$f_T$	Transition frequency ( $V_{CE}=-4\text{Vdc}$ , $I_C=-500\text{mA}$ )	---	15	---	MHz

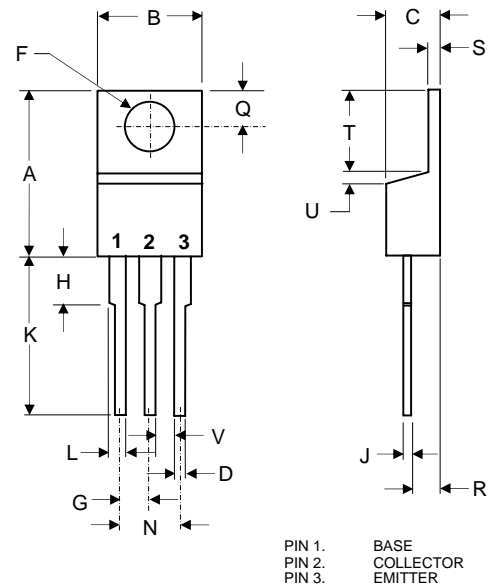
## Classification OF $h_{FE}$

Rank	B	C	D
Range	60-120	100-200	160-320

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

## PNP Silicon Power Transistors

### TO-220



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.140	.190	3.56	4.82	
D	.020	.045	0.51	1.14	
F	.139	.161	3.53	4.09	∅
G	.190	.110	2.29	2.79	
H	---	.250	---	6.35	
J	.012	.025	0.30	0.64	
K	.500	.580	12.70	14.73	
L	.045	.060	1.14	1.52	
N	.190	.210	4.83	5.33	
Q	.100	.135	2.54	3.43	
R	.080	.115	2.04	2.92	
S	.045	.055	1.14	1.39	
T	.230	.270	5.84	6.86	
U	-----	.050	-----	1.27	
V	.045	-----	1.15	-----	



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### Ordering Information :

Device	Packing
Part Number-BP	Bulk; 1Kpcs/Box

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

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