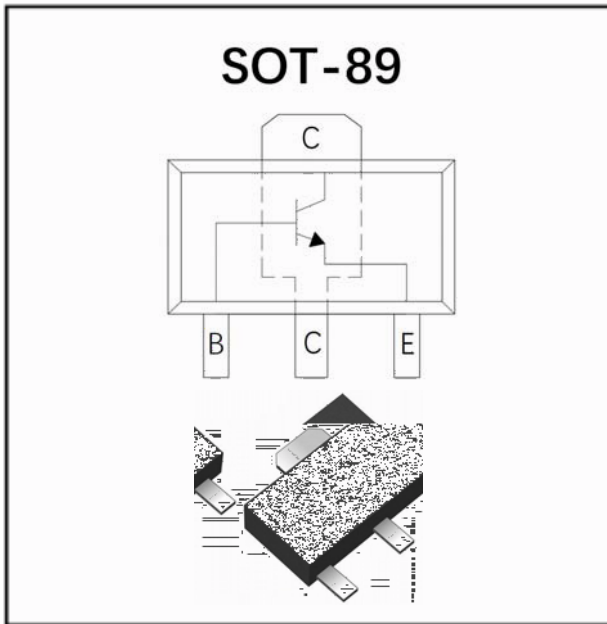


## NPN General Purpose Amplifier



### Features

- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1
- Low collector-emitter saturation voltage

### Mechanical Data

- Package:** SOT-89
- Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Maximum Ratings ( $T_a=25$  unless otherwise noted)

Item	Symbol	Unit	Conditions	Value
Minimum Collector-Emitter Voltage	$V_{CE0}$	V	$I_C=10mA, I_B=0$	30
Minimum Collector-Base Voltage	$V_{CBO}$	V	$I_C=100\mu A, I_E=0$	40
Minimum Emitter-Base Voltage	$V_{EBO}$	V	$I_E=100\mu A, I_C=0$	6
Collector Current	$I_C$	A		3
Collector Power Dissipation	$P_C$	mW		500
Thermal Resistance From Junction To Ambient	$R_{JA}$	/W		250
Operation Junction Temperature	$T_j$			-55 to +150
Storage Temperature	$T_{stg}$			-55 to +150



# BD882

## Electrical Characteristics (Ta=25 unless otherwise noted)

Item	Symbol	Unit	Conditions	Min	TYP	Max
Collector-Emitter Voltage	$V_{CEO}$	V	$I_C=10mA, I_B=0$	30		
Collector-Base Voltage	$V_{CBO}$	V	$I_C=100\mu A, I_E=0$	40		
Emitter-Base Voltage	$V_{EBO}$	V	$I_E=100\mu A, I_C=0$	6		
Collector-Base cut-off current	$I_{CBO}$	$\mu A$	$V_{CB}=40V$			1
Collector-Emitter cut-off current	$I_{CEO}$	$\mu A$	$V_{CE}=30V$			10
Emitter-Base cut-off current	$I_{EBO}$	$\mu A$	$V_{EB}=6V$			1
DC Current Gain	$h_{FE}$		$V_{CE}=2V, I_C=1A$	160		400
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	V	$I_C=2A, I_B=200mA$			0.5
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	V	$I_C=2A, I_B=200mA$			1.5
Transition Frequency	$f_T$	MHz	$I_C=100mA, V_{CE}=5V, f=10MHz$	50		

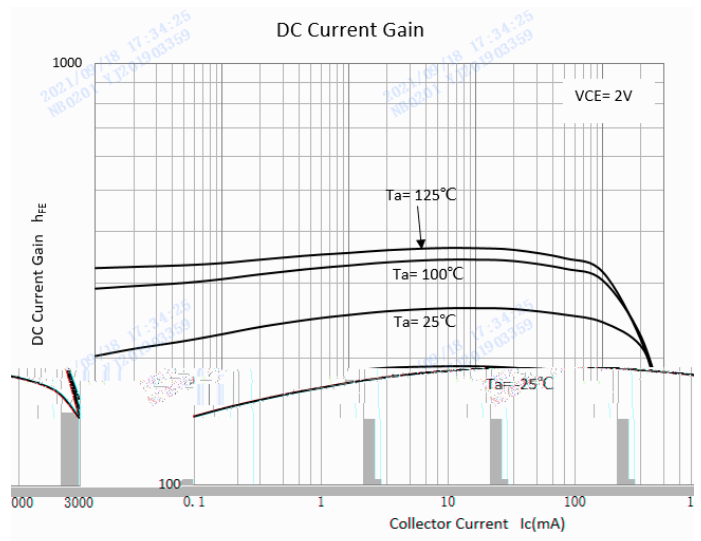
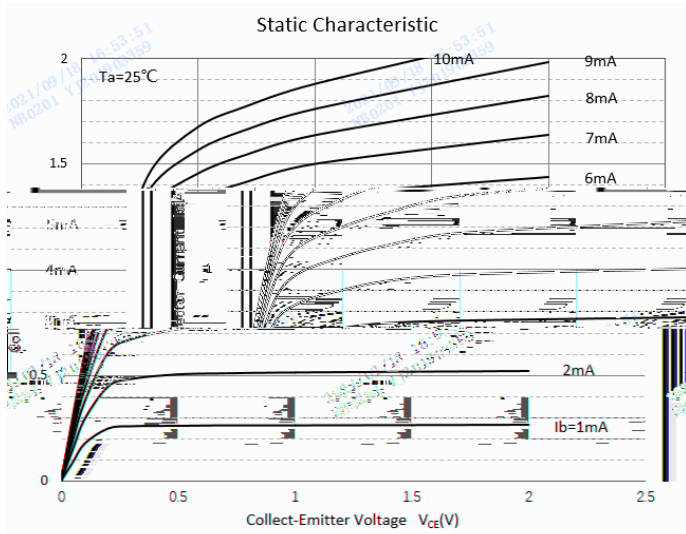
## Classification of $h_{FE}$

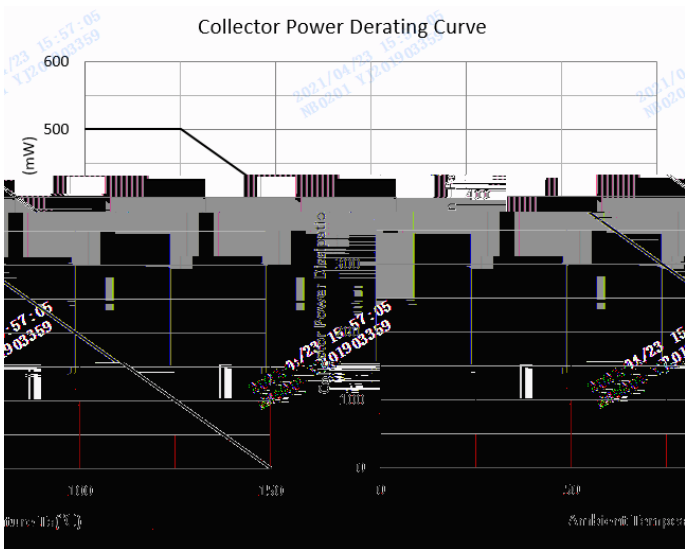
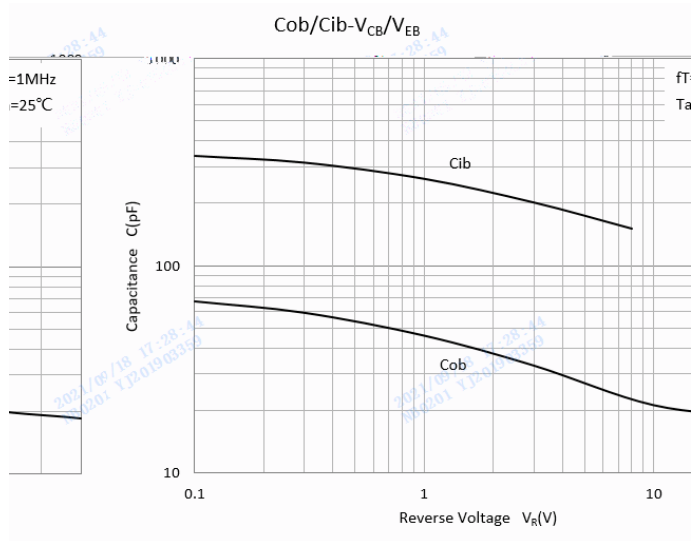
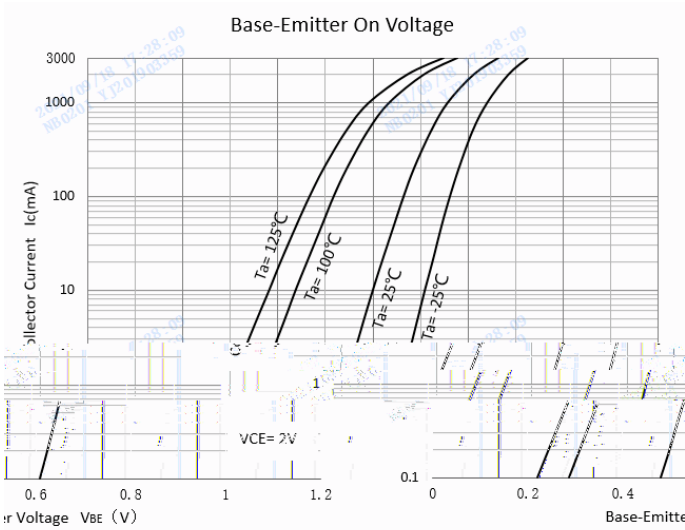
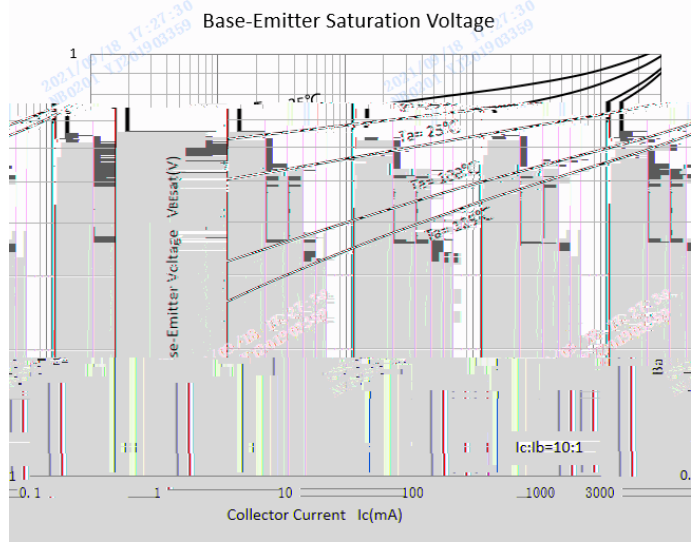
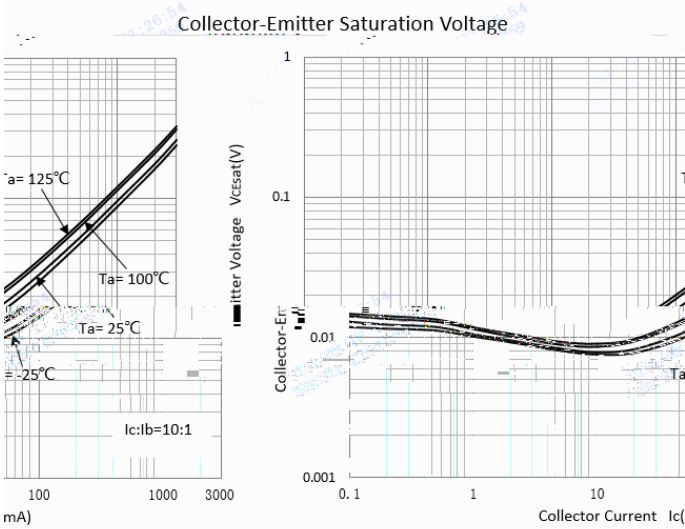
Rank	BD882-Y	BD882-GR
Range	160-320	200-400

## Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BD882	F2	Approximate 0.055	1000	8000	32000	7" reel

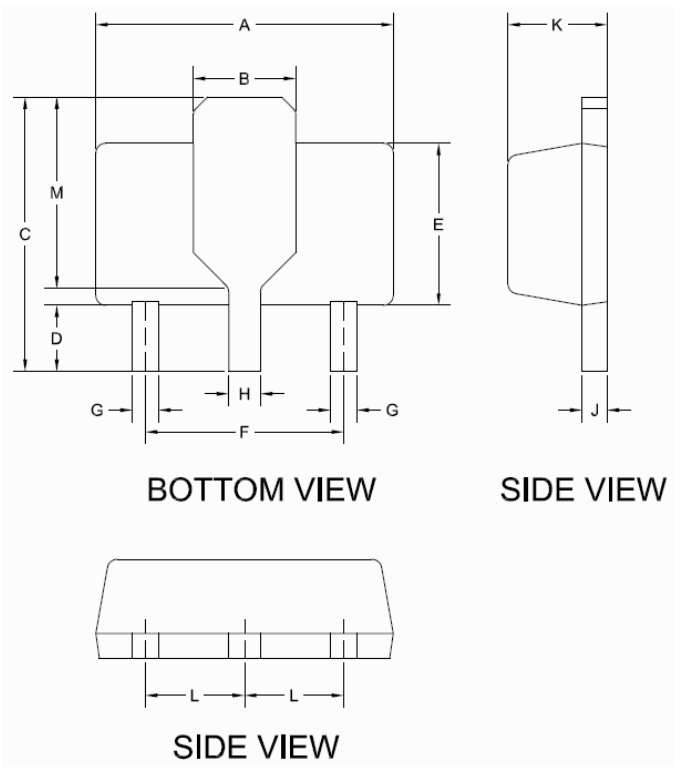
## Characteristics (Typical)





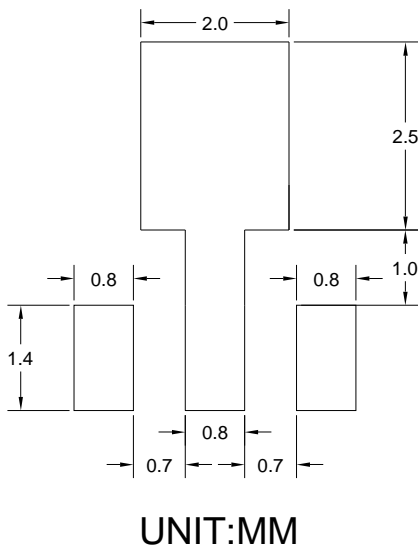


SOT-89 Package Outline Dimensions



DIMENSIONS				
DIM	INCHES		MILLIMETERS	
	MAX.	MIN.	MAX.	MIN.
A	4.600	0.173	0.181	4.400
B	0.061 TYP.		1.550 TYP.	
C	4.250	0.155	0.167	3.940
D	1.200	0.031	0.047	0.800
E	2.600	0.094	0.102	2.400
F	0.118 TYP.		3.00 TYP.	
G	0.480	0.014	0.019	0.360
H	0.440	0.560	0.017	0.022
J	0.350	0.440	0.014	0.017
K	1.400	1.600	0.055	0.063
L	1.500 TYP.		3.810 TYP.	
M	2.750 TYP.		70.00 TYP.	

SOT-89 Suggested Pad Layout



UNIT:MM



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