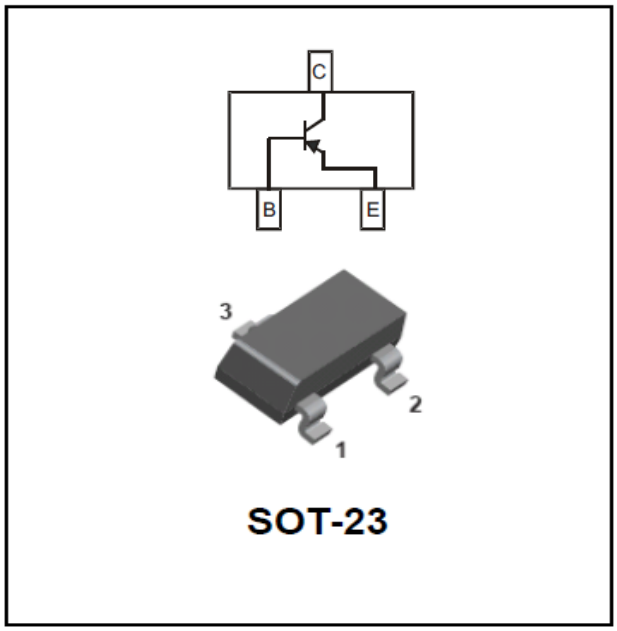
PNP Transistor



Features

- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion

Mechanical Data

- **Package**: SOT-23

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
- **Marking**:

BC856A	3A
BC856B	3B
BC857A	3E
BC857B	3F
BC857C	3G
BC858A	3J
BC858B	3K
BC858C	3L

■ **Maximum Ratings** (Ta=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage BC856 BC857 BC858	 -80 -50 -30	V
V_{CEO}	Collector-Emitter Voltage BC856 BC857 BC858	 -65 -45 -30	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-0.1	A
P_C	Collector Power Dissipation	200	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	625	℃/W
Tj	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55～+150	℃

■ Electrical Characteristics (Ta=25℃ unless otherwise noted)

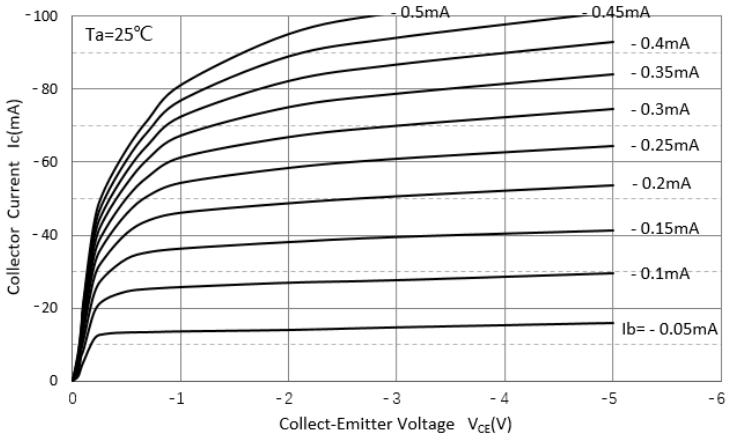
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage BC856 BC857 BC858	V_{CBO}	I_C= -10μA, I_E=0	 -80 -50 -30		V
Collector-emitter breakdown voltage BC856 BC857 BC858	V_{CEO}	I_C= -10mA, I_B=0	 -65 -45 -30		V
Emitter-base breakdown voltage	V_{EBO}	I_E= -1μA, I_C=0	-5		V
Collector-base cut-off current	I_{CBO}	V_{CB}=-30 V ,I_E=0		-0.1	μA
Emitter-base cut-off current	I_{EBO}	V_{EB}=-5 V , I_C=0		-0.1	μA
DC current gain BC856A,857A,858A BC856B,857B,858B BC857C,BC858C	h_{FE}	V_{CE}= -5V, I_C= -2mA	 125 220 420	 250 475 800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100mA, I_B= -5mA		-0.65	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-100mA, I_B= -5mA		-1.1	V
Transition frequency	f_T	V_{CE}= -5 V, I_C= -10mA f=100MHz	100		MHz
Collector-base output capacitance	Cob	VCB=-10V,f=1MHz		4.5	pF

■ Ordering Information (Example)

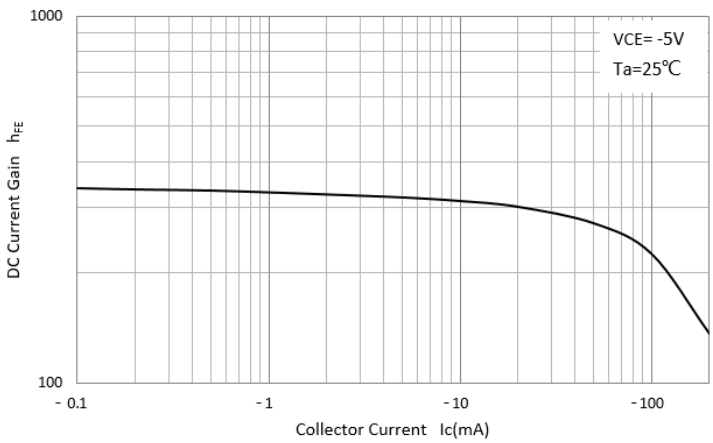
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BC856/BC857/BC858	F2	Approximate 0.008	3000	30000	120000	7” reel

■ **Characteristics**(Typical)

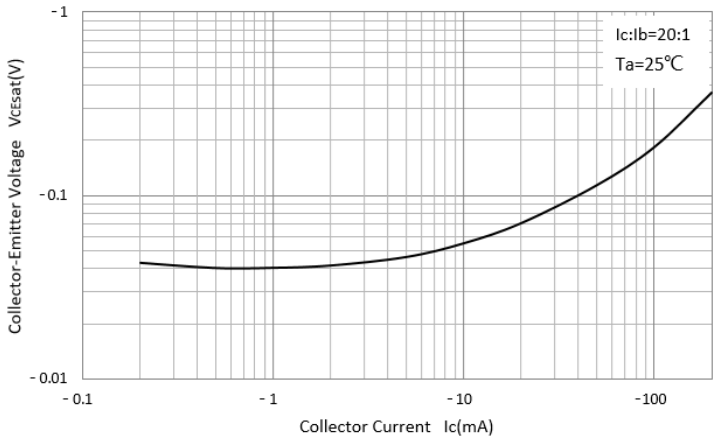
Static Characteristic



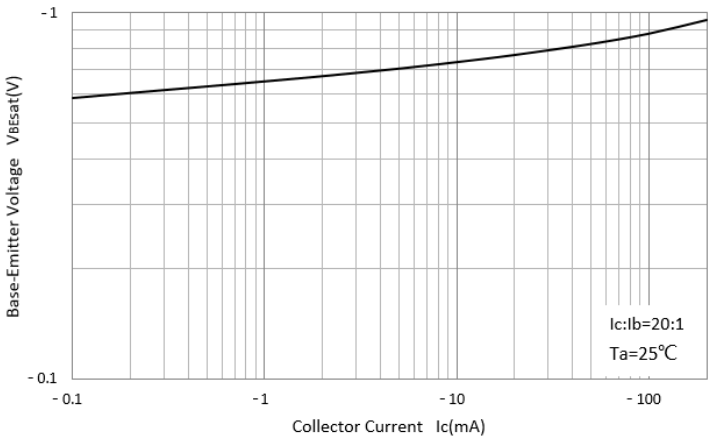
DC Current Gain



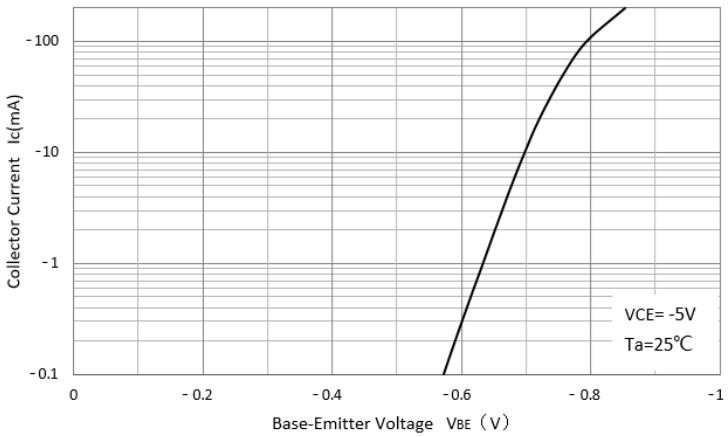
Collector-Emitter Saturation Voltage



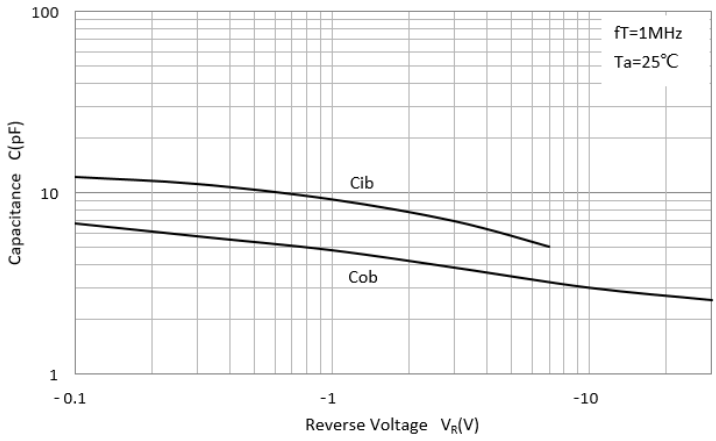
Base-Emitter Saturation Voltage



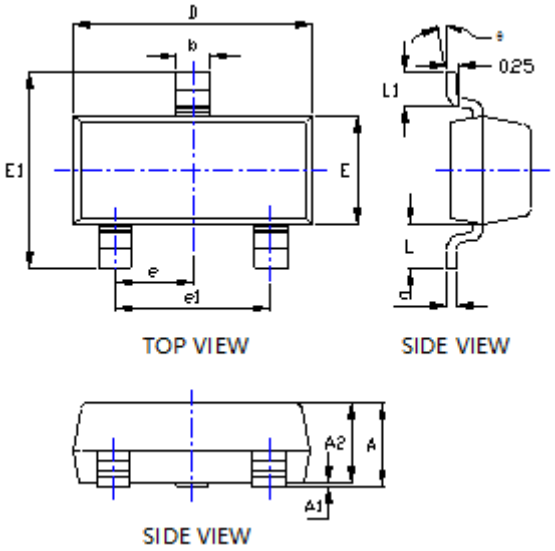
Base-Emitter On Voltage



Cob/Cib-V_{CB}/V_{EB}



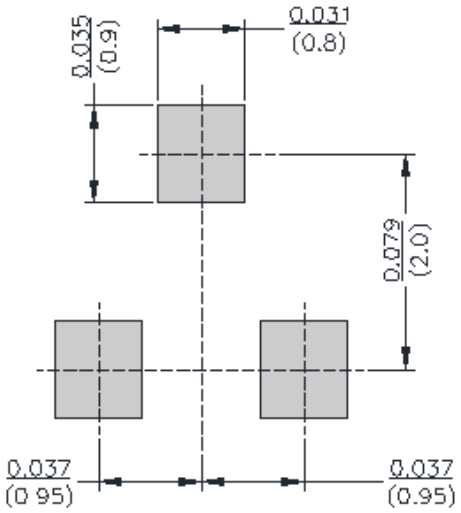
■SOT-23 Package Outline Dimensions



DIMENSIONS				
SYMBOL	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.045	0.900	1.150
A1	0.000	0.004	0.000	0.100
A2	0.035	0.041	0.900	1.050
b	0.012	0.020	0.300	0.500
c	0.004	0.008	0.100	0.200
D	0.110	0.118	2.800	3.000
E	0.047	0.055	1.200	1.400
E1	0.089	0.100	2.250	2.550
e	0.037TYP		0.950TYP	
e1	0.071	0.079	1.800	2.000
L	0.022REF		0.550REF	
L1	0.012	0.020	0.300	0.500
θ	0°	8°	0°	8°

Note:
1. All dimensions are in millimeters (mm) unless otherwise specified.
[所有尺寸均以毫米为单位，除非另有说明]
2. General tolerances: ±0.10mm unless otherwise specified.
[通用公差为±0.10mm，除非另有说明]
3. Dimensions and tolerances per ASME Y14.5M-2018.
[尺寸和公差遵循 ASME Y14.5M-2018 标准]
4.All dimensions shown are exclusive of burrs and gate residues. Burrs and gate vestiges shall not exceed 0.15 mm in maximum.
[所有尺寸均不包括毛刺和浇口残留。毛刺与浇口残留的尺寸最大不得超过 0.15mm]
5.Dimension b does not include dambar protrusion of max 0.100 mm per side.
[尺寸b不包括单边最大0.100 MM的中筋凸出部分]
6.Dimensions D and E are the overall extreme outer dimensions of the mold compound. These dimensions exclude mold flash, lead flash, protrusions and burrs but include the maximum allowable mold mismatch.
[D和E是塑封体的外部极限尺寸，不包括包封溢料、内引线溢料、凸出部分以及胶体毛刺，但是包含了包封错位的最大尺寸]
7.Formed leads shall be planar with respect to one another within a maximum of 0.076 mm relative to the seating plane.
[成型的管脚应为同一平面，共面性最大为0.1mm]

■SOT-23 Soldering Footprint



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