

NPN general purpose Transistor

BC856/857/858

FEATURES

- Low current.(max.100mA)
- Low voltage.(max.65v)

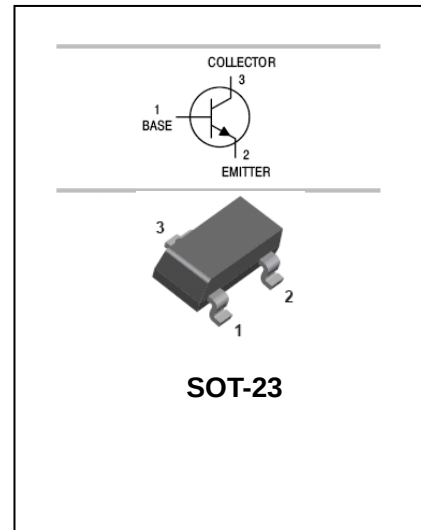


APPLICATIONS

- General purpose switching and amplification.

ORDERING INFORMATION

Type No.	Marking	Package Code
BC856A/B	3A/3B	SOT-23
BC857A/B/C	3E/3F/3G	SOT-23
BC858A/B/C	3J/3K/3L	SOT-23



MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	BC856 -80	V
		BC857 -50	
		BC858 -30	
V_{CEO}	Collector-Emitter Voltage	BC856 -65	V
		BC857 -45	
		BC858 -30	
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-0.1	A
P_C	Collector Dissipation	250	mW
T_j, T_{stg}	Junction and Storage Temperature	-65~150	°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

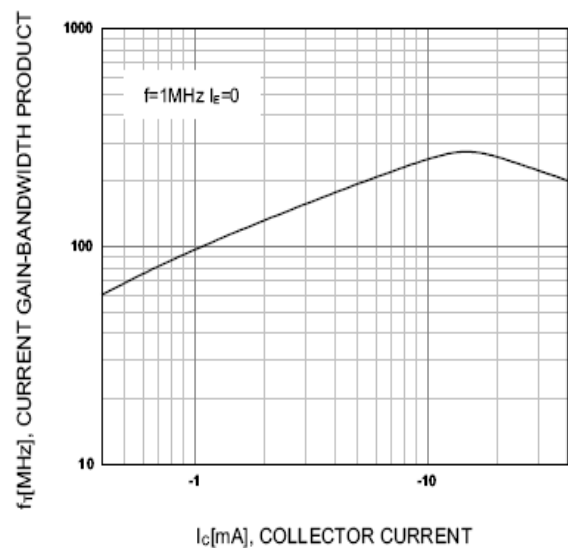
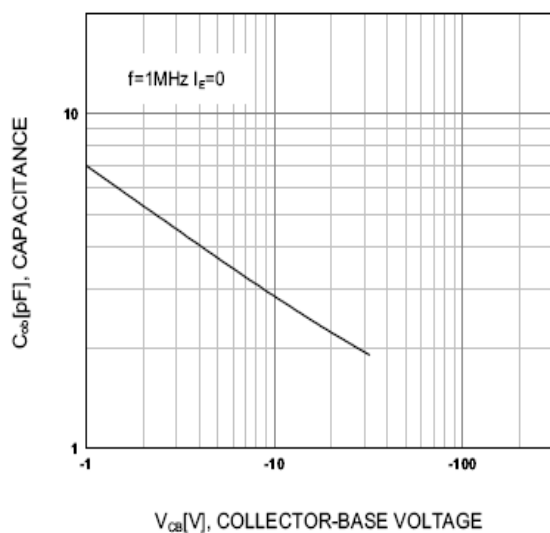
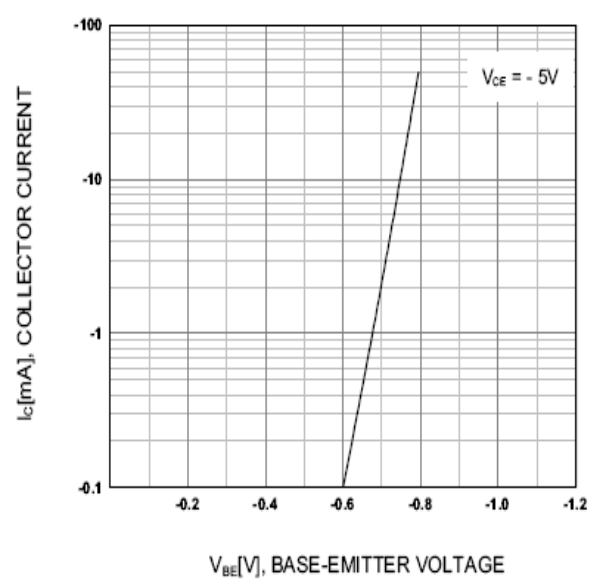
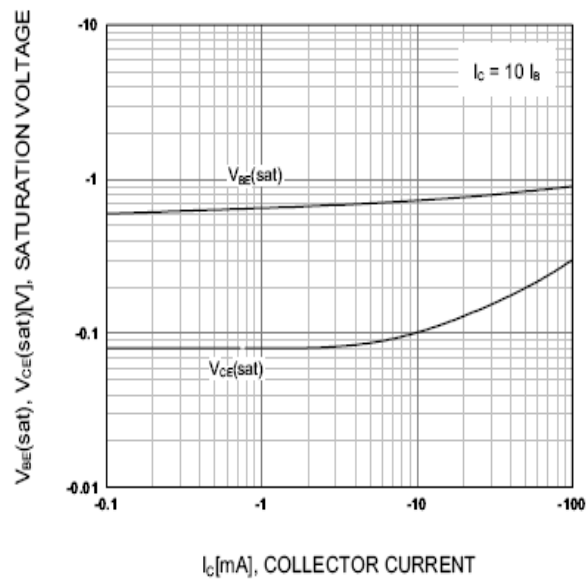
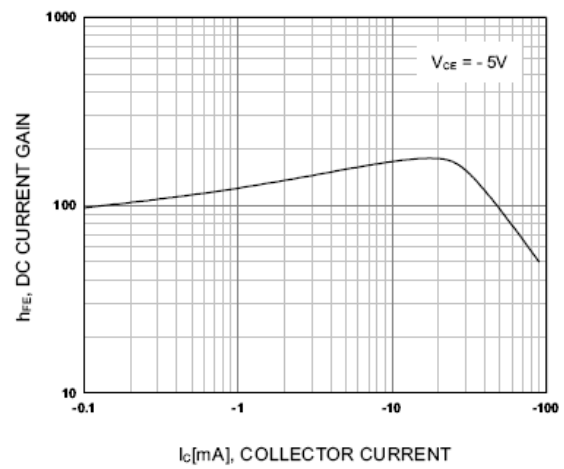
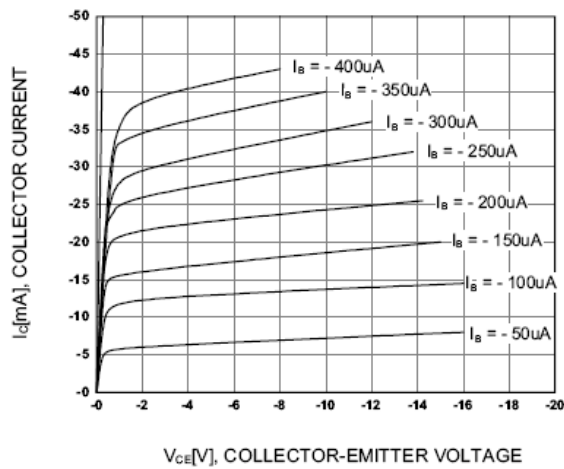
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Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	BC856 BC857 BC858	$V_{(BR)CBO}$ $I_C = -10\mu A, I_E = 0$	-80 -50 -30			V
Collector-emitter breakdown voltage	BC856 BC857 BC858	$V_{(BR)CEO}$ $I_C = -10mA, I_B = 0$	-65 -45 -30			V
Emitter-base breakdown voltage		$V_{(BR)EBO}$ $I_E = -1\mu A, I_C = 0$	-5			V
Collector cut-off current		I_{CBO} $V_{CB} = -30V, I_E = 0$		-1	-15	nA
Emitter cut-off current		I_{EBO} $V_{EB} = -5V, I_C = 0$			-0.1	μA
DC current gain	BC856A,857A,858A BC856B,857B,858B BC857C,858C	h_{FE} $V_{CE} = -5V, I_C = -2mA$	125 220 420		250 475 800	
Collector-emitter saturation voltage		$V_{CE(sat)}$ $I_C = -100mA, I_B = -5mA$ $I_C = -10mA, I_B = -0.5mA$			-0.65 -0.3	V
Base-emitter saturation voltage		$V_{BE(sat)}$ $I_C = -100mA, I_B = -5mA$			-1.1	V
collector capacitance		C_c $V_{CB} = -10V, I_E = I_e = 0$ $f = 1MHz$		4.5		pF
Transition frequency		f_T $V_{CE} = -5V, I_C = -10mA$ $f = 100MHz$	100			MHz

TYPICAL CHARACTERISTICS @ $T_a = 25^\circ C$ unless otherwise specified

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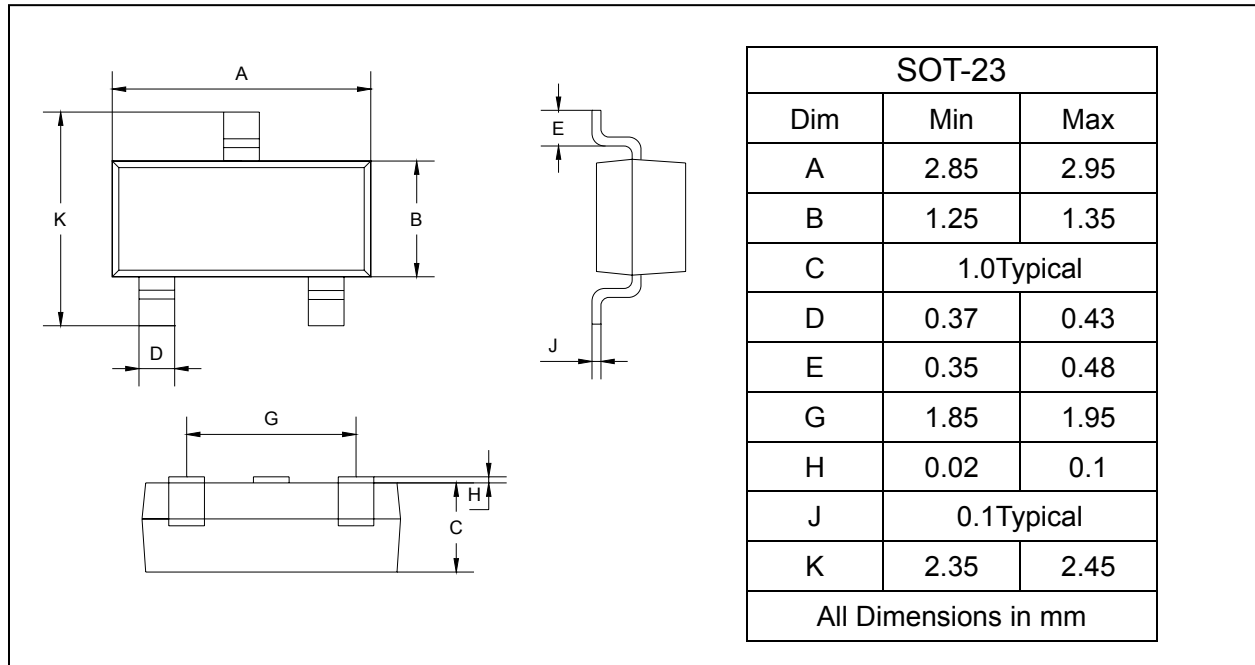
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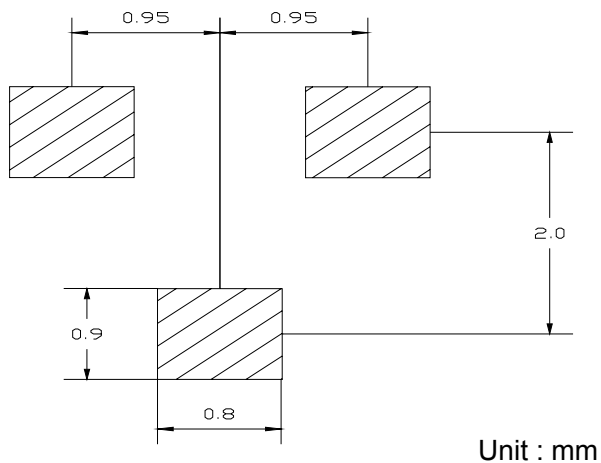
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BC856/857/858	SOT-23	3000/Tape&Reel