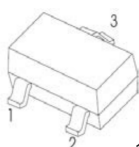


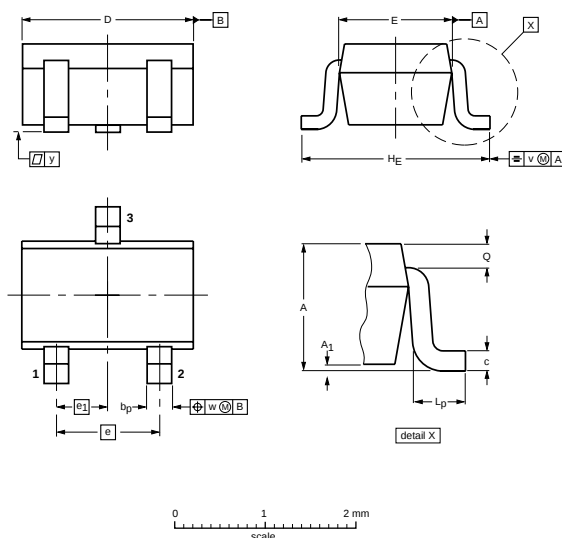
FEATURES

- Ideally suited for automatic insertion
- For Switching and AF Amplifier Applications



1.BASE
2.EMITTER
3.COLLECTOR

SOT-323



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w
mm	1.1 0.8	0.1	0.4 0.3	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.23 0.13	0.2	0.2

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage		
	BC856W	-80	V
	BC857W	-50	
	BC858W	-30	
V_{CEO}	Collector-Emitter Voltage		
	BC856W	-65	V
	BC857W	-45	
	BC858W	-30	
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current –Continuous	-0.1	A
P_C*	Collector Power Dissipation	150	mW
R_{θJA}	Thermal Resistance From Junction To Ambient	833	°C/W
T_J	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-65~+150	°C

BC856W BC857W BC858W

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage BC856W BC857W BC858W	V_{CBO}	$I_C = -10\mu\text{A}, I_E = 0$	-80 -50 -30		V
Collector-emitter breakdown voltage BC856W BC857W BC858W	V_{CEO}	$I_C = -10\text{mA}, I_B = 0$	-65 -45 -30		V
Emitter-base breakdown voltage	V_{EBO}	$I_E = -1\mu\text{A}, I_C = 0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB} = -30\text{V}, I_E = 0$		-15	nA
DC current gain BC856AW, 857AW, 858AW BC856BW, 857BW, 858BW BC857CW, BC858CW	h_{FE}	$V_{CE} = -5\text{V}, I_C = -2\text{mA}$	125 220 420	250 475 800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{mA}, I_B = -5\text{mA}$		-0.65	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100\text{mA}, I_B = -5\text{mA}$		-1.1	V
Transition frequency	f_T	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$ $f = 100\text{MHz}$	100		MHz
Collector capacitance	C_{ob}	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		4.5	pF

RATING AND CHARACTERISTIC CURVES (BC856W BC857W BC858W)

