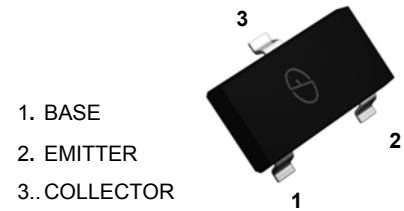


Feature

- Power dissipation of 150mW
- Ideally suited for automatic insertion
- For switching and AF amplifier applications



SOT-323

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Collector - Base Voltage	V _{CB0}	-50	V
Collector - Emitter Voltage	V _{CEO}	-45	V
Emitter - Base Voltage	V _{EBO}	-5	V
Collector Current - Continuous	I _C	-100	mA
Collector Power Dissipation	P _C	150	mW
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55 to 150	°C
Thermal Resistance from Junction to Ambient	R _{θJA}	833	°C/W

Electrical Characteristics (T_J=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Value		Unit	
			Min	Max		
Collector - Base Breakdown Voltage	V _{(BR)CBO}	I _C =-10μA, I _E =0	-50	-	V	
Collector - Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =-10mA, I _B =0	-45	-	V	
Emitter - Base Breakdown Voltage	V _{(BR)EBO}	I _E =-1μA, I _C =0	-5	-	V	
Collector Cut - Off Current	I _{CB0}	V _{CB} =-30V, I _E =0	-	-15	nA	
DC Current Gain	h _{FE}	V _{CE} =-5V I _C =-2mA	GSBC857AW	125	250	
			GSBC857BW	220	475	
			GSBC857CW	420	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} =-5V, I _C =-10mA, F=100MHz	100	-	MHz	
Collector Output Capacitance	C _{ob}	V _{CB} =-10V, F=1MHz	-	4.5	pF	

Typical Characteristic Curves

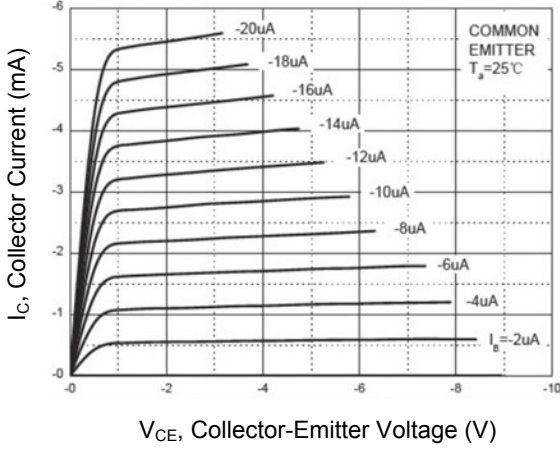


Figure 1. Static Characteristic

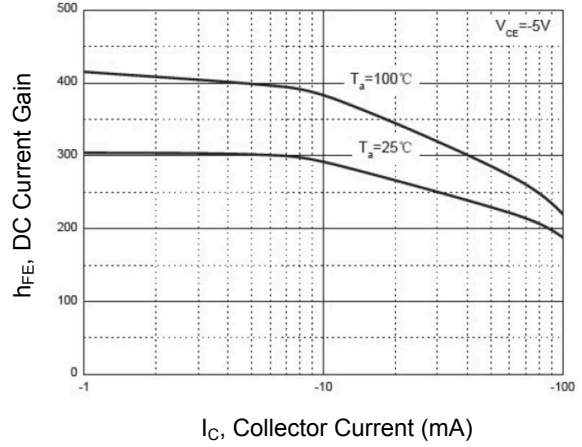


Figure 2. DC Current Gain vs. Collector Current

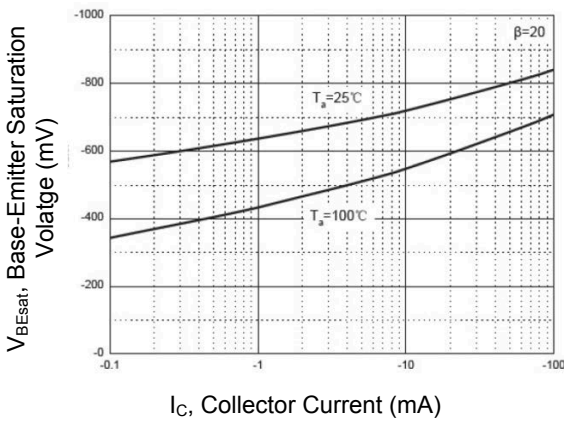


Figure 3. Base Emitter Saturation Voltage vs. Ic

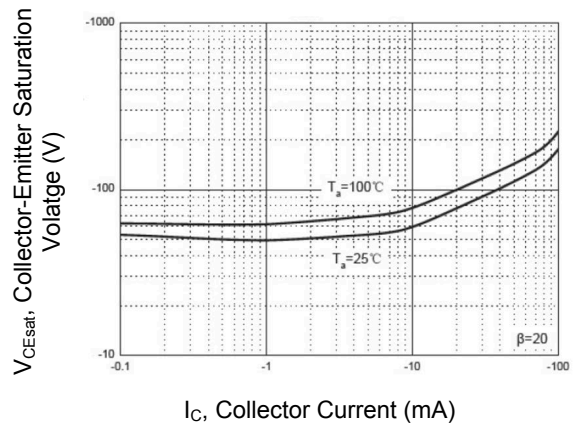


Figure 4. Collector Emitter Saturation Voltage vs. Ic

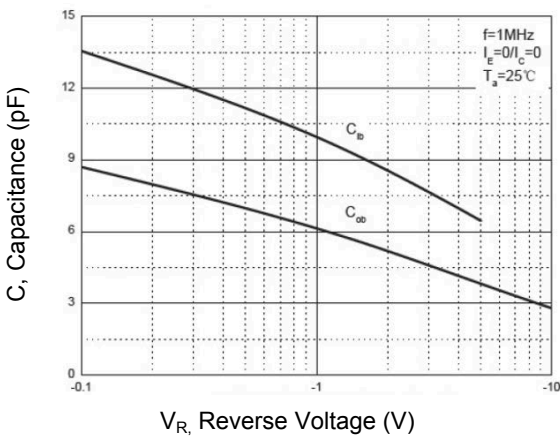


Figure 5. Capacitance Characteristics

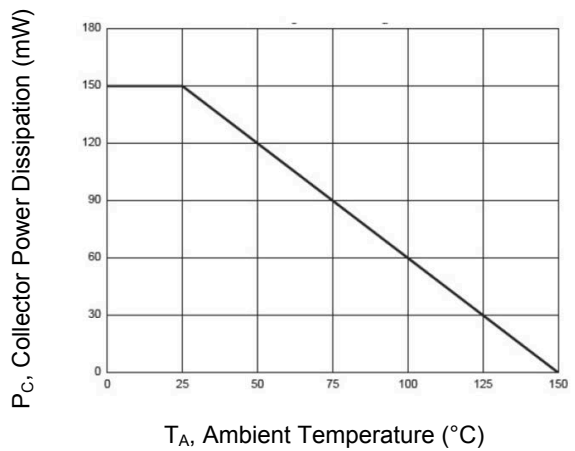
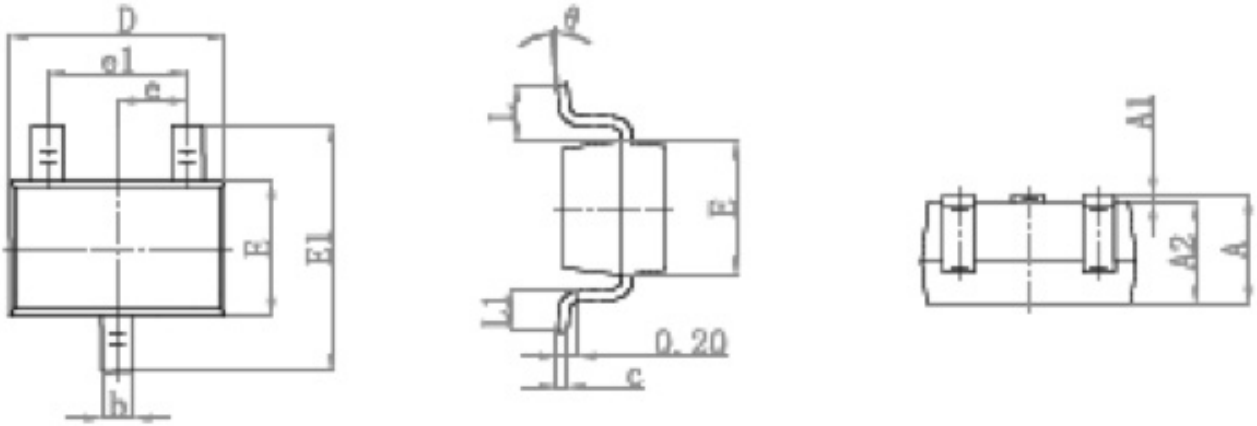


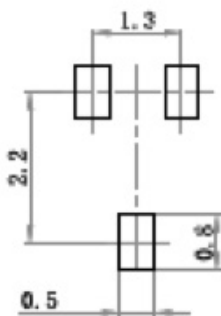
Figure 6. Power Derating

Package Outline Dimensions SOT-323



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

Recommended Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.



GSBC857xW

PNP Transistor

Order Information

Device	Package	Marking	Carrier	Quantity
GSBC857AW	SOT-323	3E	Tape & Reel	3,000 Reel
GSBC857BW	SOT-323	3F	Tape & Reel	3,000 Reel
GSBC857CW	SOT-323	3G	Tape & Reel	3,000 Reel