

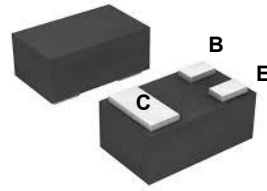
GSBC85xxM PNP Transistors

Feature

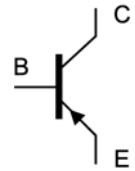
- Power dissipation of 150mW
- Ideally suited for automatic insertion
- For switching and AF amplifier applications

Mechanical Data

- Small outline plastic package
- Epoxy UL: 94V-0
- Mounting position: Any



SOT-883



Schematic Diagram

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter		Symbol	Value	Unit
Collector-Base Voltage	GSBC856AM	V_{CBO}	-80	V
	GSBC856BM			
	GSBC857AM			
	GSBC857BM		-50	
	GSBC857CM			
	GSBC858AM			
	GSBC858BM		-30	
	GSBC858CM			
Collector-Emitter Voltage	GSBC856AM	V_{CEO}	-65	V
	GSBC856BM			
	GSBC857AM			
	GSBC857BM		-45	
	GSBC857CM			
	GSBC858AM			
	GSBC858BM		-30	
	GSBC858CM			
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current		I_C	-100	mA
Collector Power Dissipation		P_C	150	mW
Thermal Resistance from Junction to Ambient		$R_{\theta JA}$	833	$^{\circ}\text{C/W}$
Operation Junction Temperature		T_J	150	$^{\circ}\text{C}$
Storage Temperature Range		T_{STG}	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter		Symbol	Conditions	Min	Max	Unit
Collector-Base Breakdown Voltage	GSBC856AM	V_{CBO}	$I_C=-10\mu\text{A}, I_E=0$	-80	-	V
	GSBC856BM					
	GSBC857AM					
	GSBC857BM			-50	-	
	GSBC857CM					
	GSBC858AM					
	GSBC858BM			-30	-	
	GSBC858CM					
Collector-Emitter Breakdown Voltage	GSBC856AM	V_{CEO}	$I_C=-10\text{mA}, I_B=0$	-65	-	V
	GSBC856BM					
	GSBC857AM					
	GSBC857BM			-45	-	
	GSBC857CM					
	GSBC858AM					
	GSBC858BM			-30	-	
	GSBC858CM					
Emitter-Base Breakdown Voltage		V_{EBO}	$I_E=-1\mu\text{A}, I_C=0$	-5	-	V
Collector Cutoff Current		I_{CBO}	$V_{CB}=-30\text{V}, I_E=0$	-	-15	nA
DC Current Gain	GSBC856AM, GSBC857AM, GSBC858AM	h_{FE}	$I_C=-2\text{mA}, V_{CE}=-5\text{V}$	125	250	-
	GSBC856BM, GSBC857BM, GSBC858BM			220	475	
	GSBC857CM, GSBC858CM			420	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		$V_{BE(sat)}$	$I_C=-100\text{mA}, I_B=-5\text{mA}$	-	-1.10	V
Transition Frequency		f_T	$I_C=-10\text{mA}, V_{CE}=-5\text{V}, f=100\text{MHz}$	100	-	MHz
Collector-Base Output Capacitance		C_{ob}	$V_{CB}=-10\text{V}, f=1\text{MHz}$	-	4.5	pF

Typical Characteristic Curves

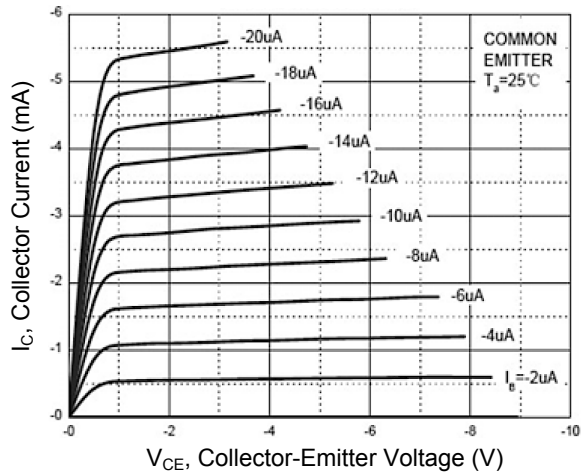


Figure 1. Static Characteristics

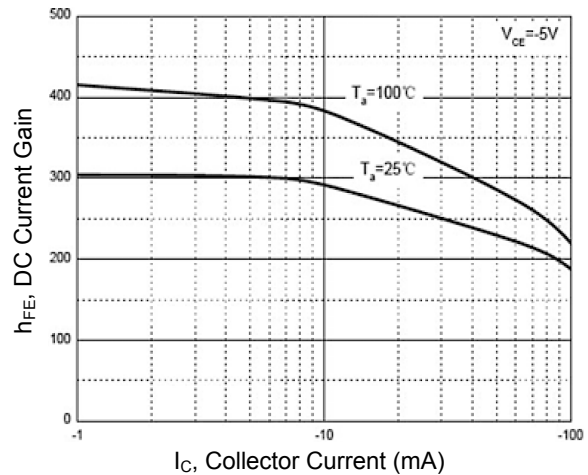


Figure 2. DC Current Gain Characteristics

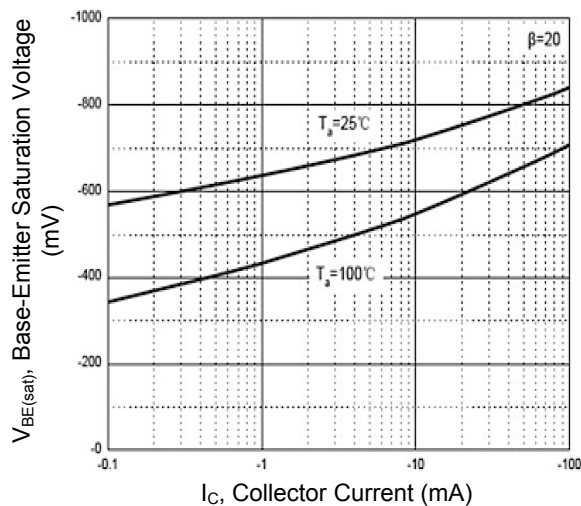


Figure 3. Base-Emitter Saturation Voltage vs. Collector Current

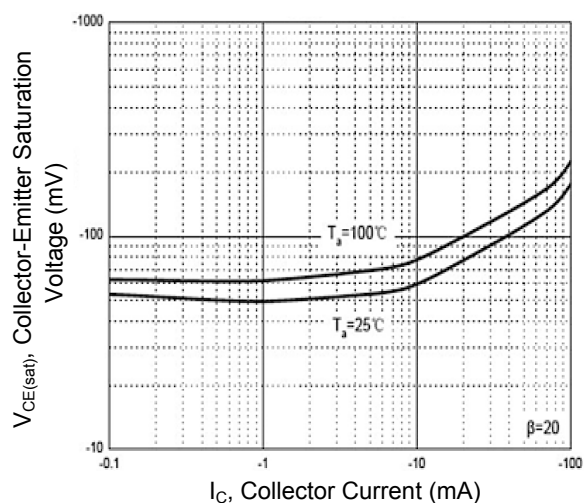


Figure 4. Collector-Emitter Saturation Voltage vs. Collector Current

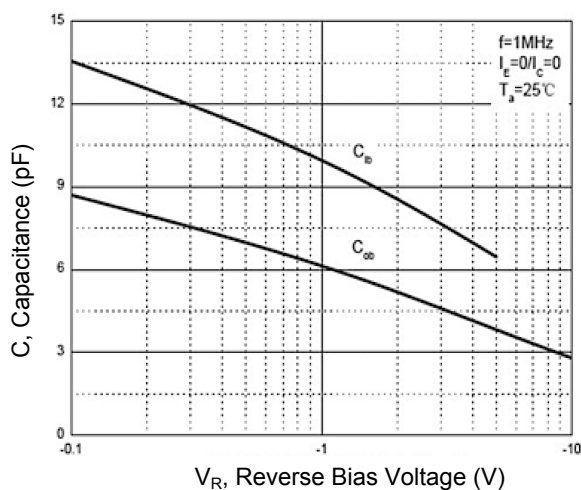


Figure 5. Capacitance Characteristics

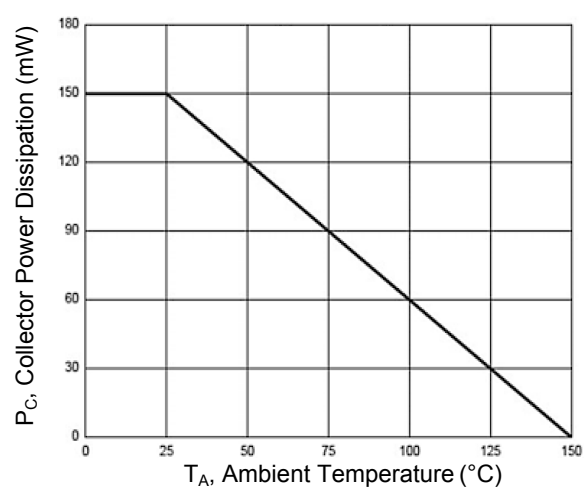
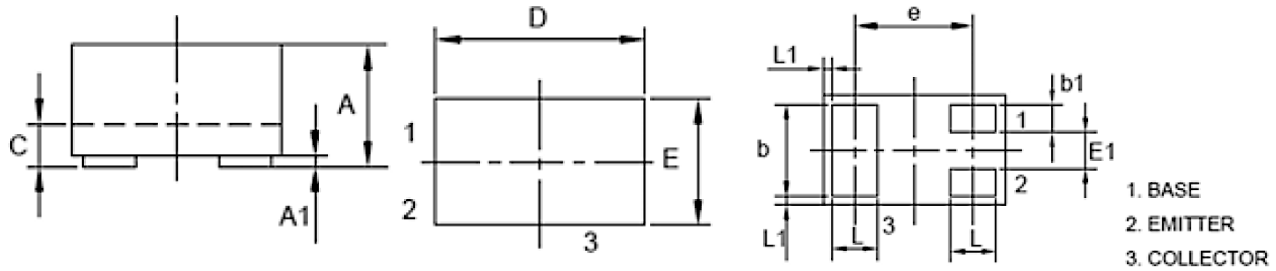


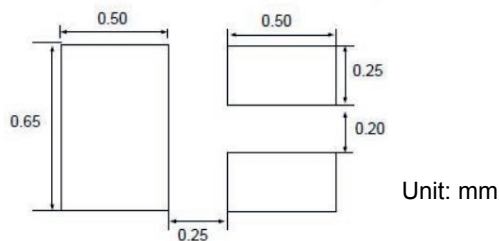
Figure 6. Collector Power Derating Curve

Package Outline Dimensions (SOT-883)



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	0.450	0.550	0.018	0.022
A1	0.000	0.050	0.000	0.002
b	0.450	0.550	0.018	0.022
b1	0.100	0.200	0.004	0.008
C	0.120	0.180	0.005	0.007
D	0.950	1.075	0.037	0.042
E	0.550	0.675	0.022	0.026
E1	0.150	0.250	0.006	0.010
e	0.650 TYP		0.026 BSC	
L	0.200	0.300	0.008	0.012
L1	0.050 TYP		0.002 REF	

Recommended Pad Layout



Order Information

Device	Package	Marking	Packaging	SPQ
GSBC856AM	SOT-883	3A	Tape & Reel	10,000 Pcs / Reel
GSBC856BM	SOT-883	3B	Tape & Reel	10,000 Pcs / Reel
GSBC857AM	SOT-883	3E	Tape & Reel	10,000 Pcs / Reel
GSBC857BM	SOT-883	3F	Tape & Reel	10,000 Pcs / Reel
GSBC857CM	SOT-883	3G	Tape & Reel	10,000 Pcs / Reel
GSBC858AM	SOT-883	3J	Tape & Reel	10,000 Pcs / Reel
GSBC858BM	SOT-883	3K	Tape & Reel	10,000 Pcs / Reel
GSBC858CM	SOT-883	3L	Tape & Reel	10,000 Pcs / Reel