GOOD-ARK
SEMICONDUCTOR

GSBC807W
PNP Transistor

Feature

- Epitaxial planar die construction
- SOT-323 small outline plastic package
- Ideally for automatic insertion

SOT-323

1. BASE
2. EMITTER
3. COLLECTOR

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

Parameter	Symbol	Max.	Unit
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-45	V
Emitter -Base Voltage	V_{EBO}	-5.0	V
Collector Current-Continuous	I_C	-500	mA
Collector Power Dissipation	P_C	200	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	625	°C/W
Junction Temperature	T_J	-55 To +150	°C
Storage Temperature	T_{STG}	-55 To +150	°C

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

Parameter	Symbol	Conditions	Min.	Max.	Unit
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_{CBO}	V_{CB}=-20V, I_E=0	-	-100	nA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-5V, I_C=0	-	-100	nA
DC Current Gain	$h_{FE(1)}$	V_{CE}=-1V, I_C=-100mA	100	600	
	$h_{FE(2)}$	V_{CE}=-1V, I_C=-500mA	40	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-500mA, I_B=-50mA	-	-0.70	V
Base-Emitter Voltage	$V_{BE(on)}$	V_{CE}=-1V, I_C=-500mA	-	-1.20	V
Transition Frequency	f_T	V_{CE}=-5V, I_C=-10mA, f=100MHz	80	-	MHZ
Collector Output Capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=100MHz	-	10	pF

$h_{FE(1)}$ Classifications

Rank	GSBC807-16W	GSBC807-25W	GSBC807-40W
Range	100 - 250	160 - 400	250 - 600
Marking	5A	5B	5C

Typical Characteristic Curves

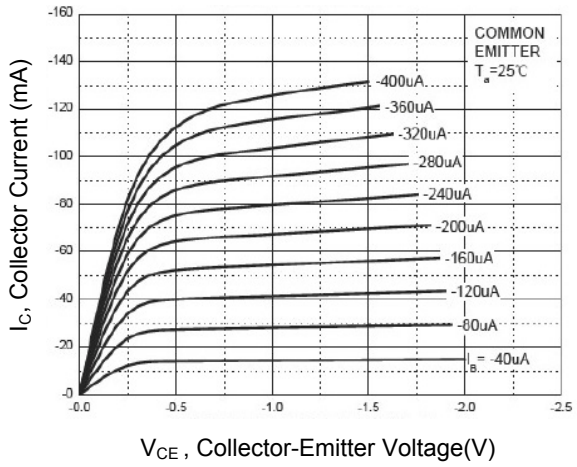

Figure 1. Static Characteristic

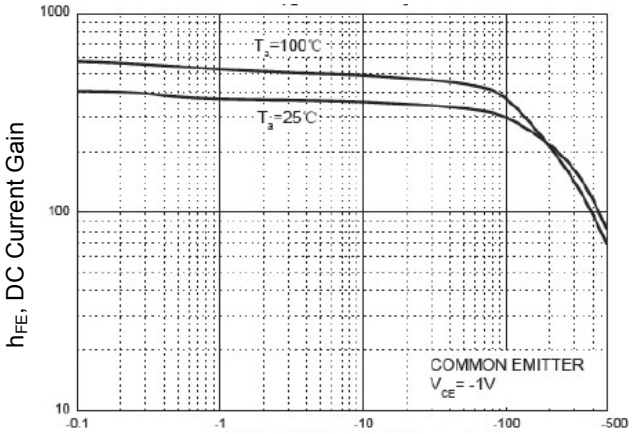

Figure 2. DC Current Gain

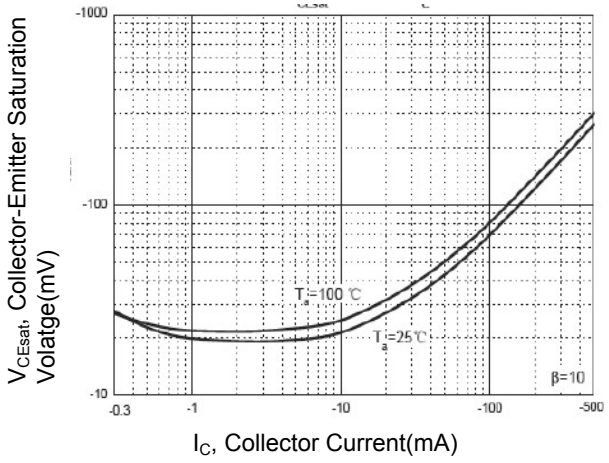

Figure 3. Collector Emitter Saturation Voltage vs. I_C

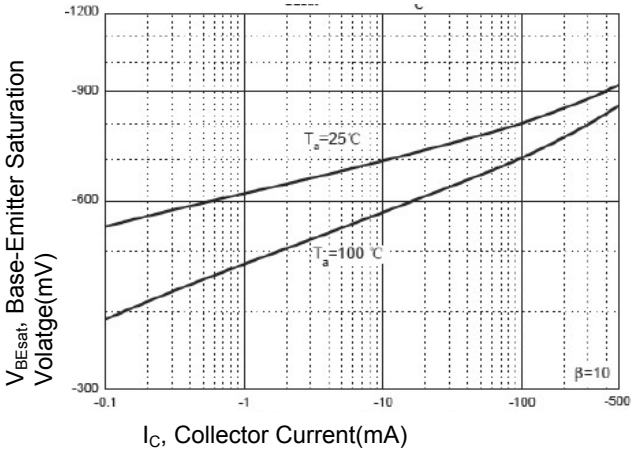

Figure 4. Base Emitter Saturation Voltage vs. I_C

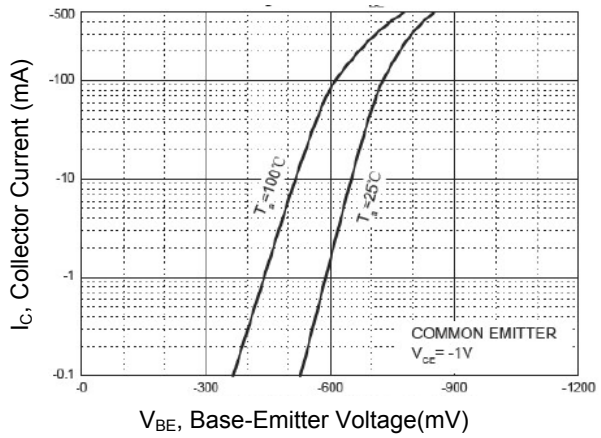

Figure 5. Collector Current vs. Base Emitter Voltage

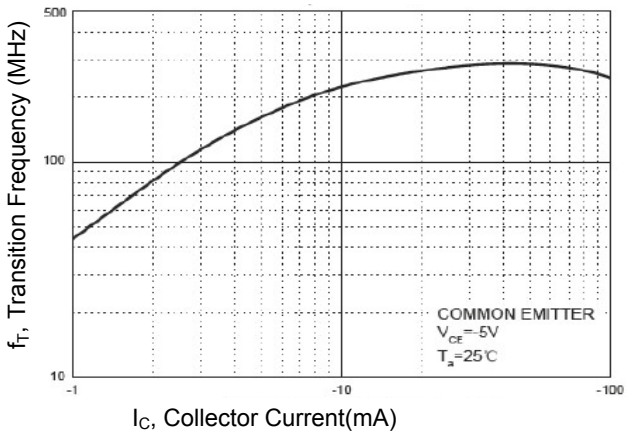

Figure 6. Transition Frequency vs. I_C

Typical Characteristic Curves

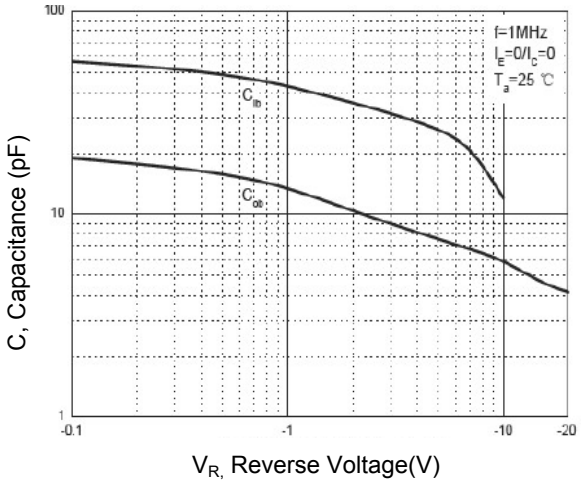

Figure 7. Capacitance Characteristics

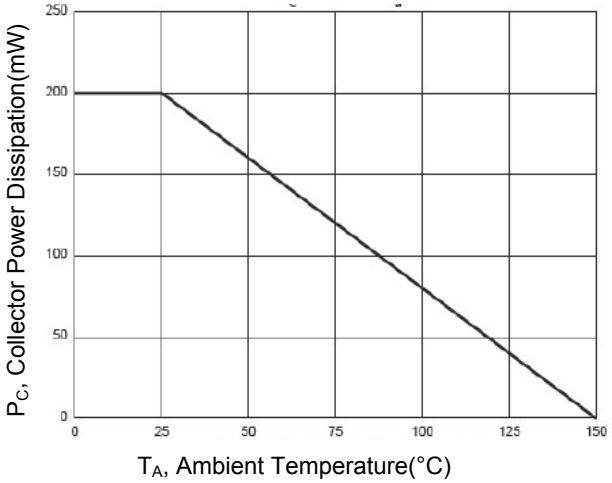

Figure 8. Power Derating