

GL159

PNP SILICON PLANAR HIGH CURRENT TRANSISTOR

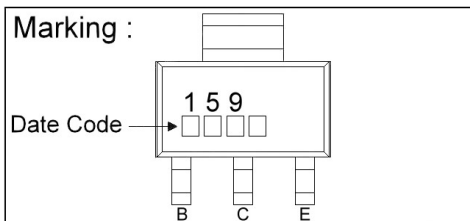
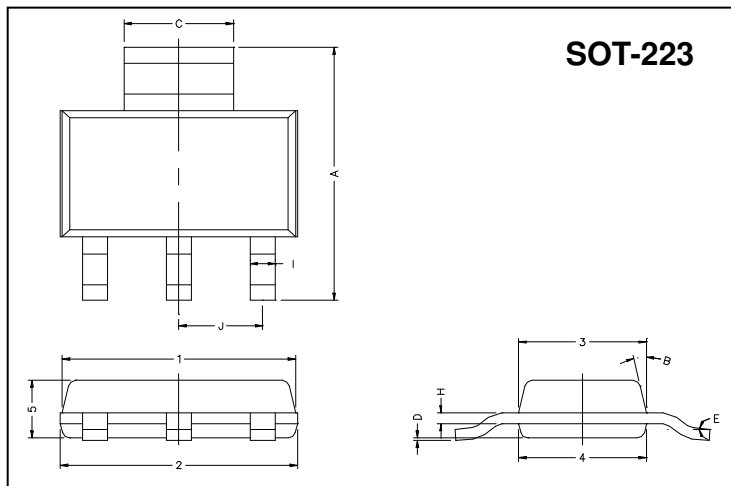
Description

The GL159 is designed for general purpose switching and amplifier applications.

Features

- 5 Amps continuous current, up to 15Amps peak current
- Excellent gain characteristic specified up to 10Amps
- Very low saturation voltages

Package Dimensions



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.70	7.30	B	13° TYP.	
C	2.90	3.10	J	2.30 REF.	
D	0.02	0.10	1	6.30	6.70
E	0°	10°	2	6.30	6.70
I	0.60	0.80	3	3.30	3.70
H	0.25	0.35	4	3.30	3.70
			5	1.40	1.80

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Ratings	Unit
Junction Temperature	T _j	+150	°C
Storage Temperature	T _{stg}	-55~+150	°C
Collector to Base Voltage	V _{CB0}	-100	V
Collector to Emitter Voltage	V _{CEO}	-60	V
Emitter to Base Voltage	V _{EB0}	-6	V
Collector Current (DC)	I _c	-5	A
Collector Current (Pulse)	I _c	-15	A
Total Power Dissipation	P _D	3	W

*The power which can be dissipated assuming the device is mounted in a typical manner on a P.C.B. with copper equal to 4 square inch minimum.

Electrical Characteristics (Ta = 25°C, unless otherwise stated)

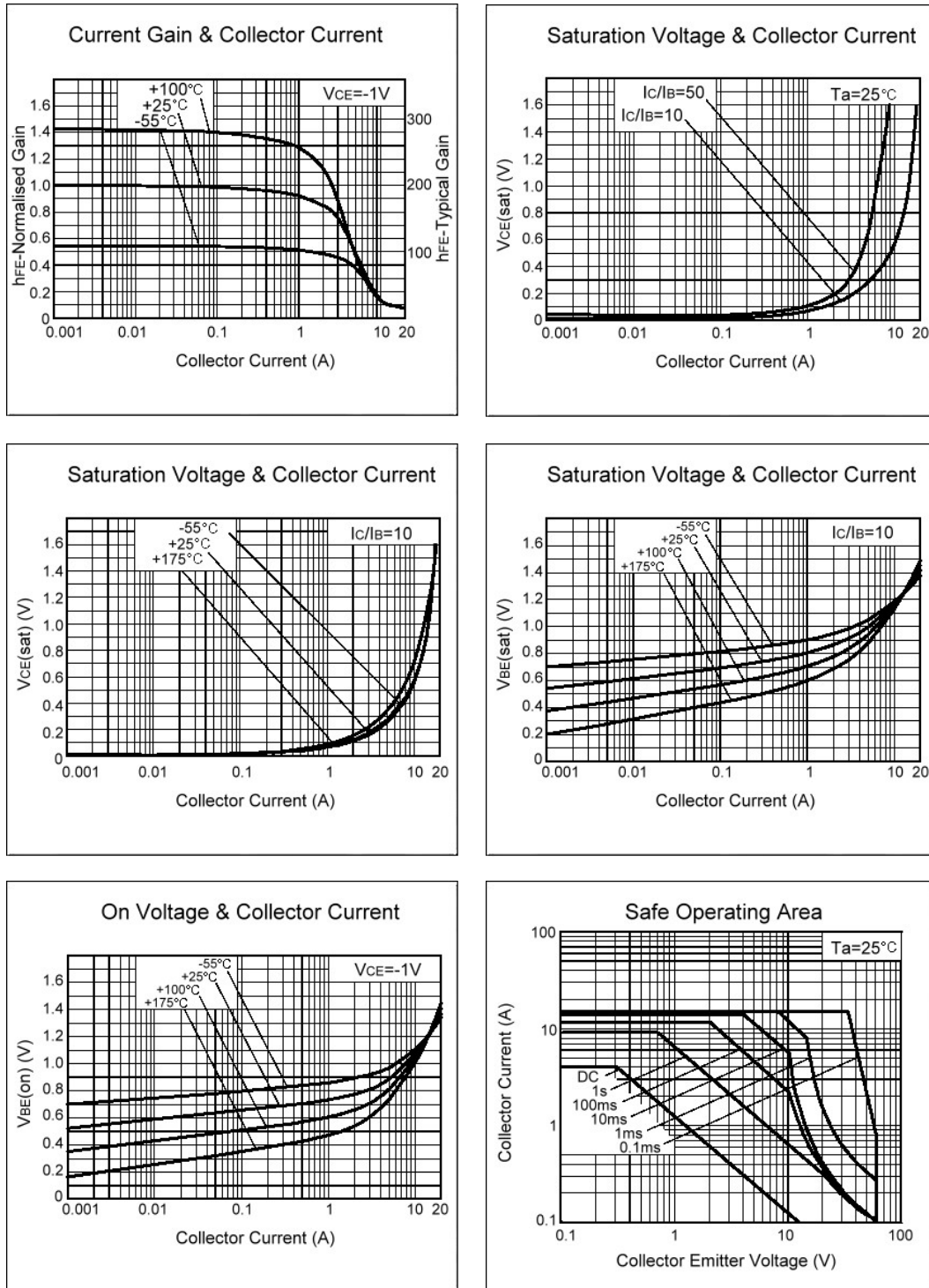
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV _{CB0}	-100	-	-	V	I _c =-100uA, I _E =0
*BV _{CEO}	-60	-	-	V	I _c =-10mA, I _B =0
BV _{EB0}	-6	-	-	V	I _E =-100uA, I _c =0
I _{CB0}	-	-	-50	nA	V _{CB} =-80V, I _E =0
I _{CES}	-	-	-50	nA	V _{CE} =-60V
I _{EBO}	-	-	-10	nA	V _{EB} =-6V, I _c =0
*V _{CE(sat)} 1	-	-20	-50	mV	I _c =-100mA, I _B =-10mA
*V _{CE(sat)} 2	-	-85	-140	mV	I _c =-1A, I _B =-100mA
*V _{CE(sat)} 3	-	-155	-210	mV	I _c =-2A, I _B =-200mA
*V _{CE(sat)} 4	-	-370	-460	mV	I _c =-5A, I _B =-500mA
*V _{BE(sat)}	-	-1.08	-1.24	V	I _c =-5A, I _B =-500mA
*V _{BE(on)}	-	-0.935	-1.07	V	V _{CE} =-1V, I _c =-5A
*h _{FE1}	100	200			V _{CE} =-1V, I _c =-10mA
*h _{FE2}	100	200	300		V _{CE} =-1V, I _c =-2A
*h _{FE3}	75	90			V _{CE} =-1V, I _c =-5A
*h _{FE4}	10	25			V _{CE} =-1V, I _c =-10A
f _T	-	120	-	MHz	V _{CE} =-10V, I _c =-100mA, f=50MHz

Cob	-	74	-	pF	$V_{CB}=-10V, I_E=0, f=1MHz$
ton	-	82	-	ns	$V_{CC}=-10V, I_C=-2A, I_{B1}=I_{B2}=-200mA$
toff	-	350	-		

*Measured under pulse condition. Pulse width $\leq 300\mu s$, Duty Cycle $\leq 2\%$

Spice parameter data is available upon request for this device.

Characteristics Curve



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