

## GL157

### PNP SILICON PLANAR HIGH PERFORMANCE TRANSISTOR

#### Description

The GL157 is designed for general purpose switching and amplifier applications.

#### Features

- -60 Volt  $V_{CE0}$
- 3 Amp continuous current
- Low saturation voltage

#### Package Dimensions

**SOT-223**

Marking :

Date Code →         

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 $T_a = 25^\circ\text{C}$

Parameter	Symbol	Ratings	Unit
Junction Temperature	$T_j$	+150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55~+150	$^\circ\text{C}$
Collector to Base Voltage	$V_{CB0}$	-80	V
Collector to Emitter Voltage	$V_{CE0}$	-60	V
Emitter to Base Voltage	$V_{EBO}$	-5	V
Collector Current (DC)	$I_C$	-3	A
Collector Current (Pulse)	$I_C$	-6	A
Total Power Dissipation	$P_D$	2	W

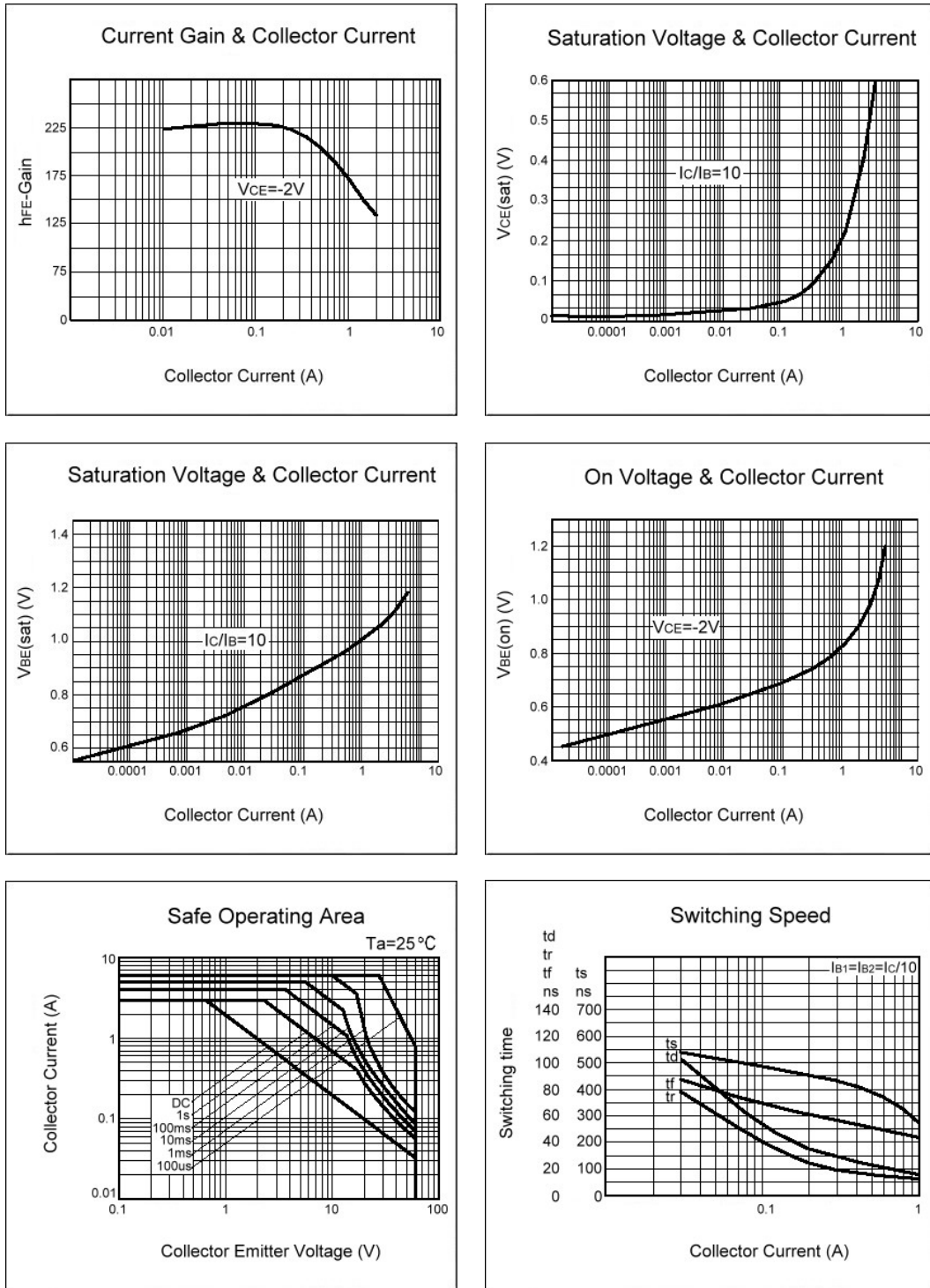
#### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ , unless otherwise noted)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
$V_{CB0}$	-80	-	-	V	$I_C = -100\mu\text{A}$ , $I_E = 0$
* $V_{CE0}$	-60	-	-	V	$I_C = -10\text{mA}$ , $I_B = 0$
$V_{EBO}$	-5	-	-	V	$I_E = -100\mu\text{A}$ , $I_C = 0$
$I_{CBO}$	-	-	-100	nA	$V_{CB} = -60\text{V}$ , $I_E = 0$
$I_{EBO}$	-	-	-100	nA	$V_{EB} = -4\text{V}$ , $I_C = 0$
* $V_{CE(sat)1}$	-	-150	-300	mV	$I_C = -1\text{A}$ , $I_B = -100\text{mA}$
* $V_{CE(sat)2}$	-	-450	-600	mV	$I_C = -3\text{A}$ , $I_B = -300\text{mA}$
* $V_{BE(sat)}$	-	-0.9	-1.25	V	$I_C = -1\text{A}$ , $I_B = -100\text{mA}$
* $V_{BE(on)}$	-	-0.8	-1.0	V	$V_{CE} = -2\text{V}$ , $I_C = -1\text{A}$
* $h_{FE1}$	70	200			$V_{CE} = -2\text{V}$ , $I_C = -50\text{mA}$
* $h_{FE2}$	100	200	300		$V_{CE} = -2\text{V}$ , $I_C = -500\text{mA}$
* $h_{FE3}$	80	170			$V_{CE} = -2\text{V}$ , $I_C = -1\text{A}$
* $h_{FE4}$	40	150			$V_{CE} = -2\text{V}$ , $I_C = -2\text{A}$
fT	100	140	-	MHz	$V_{CE} = -5\text{V}$ , $I_C = -100\text{mA}$ , $f = 100\text{MHz}$
Cob	-	-	30	pF	$V_{CB} = -10\text{V}$ , $I_E = 0$ , $f = 1\text{MHz}$
ton	-	40	-	ns	$V_{CC} = -10\text{V}$ , $I_C = -500\text{mA}$ , $I_{B1} = I_{B2} = -50\text{mA}$
toff	-	450	-		

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

Spice parameter data is available upon request for this device.

## Characteristics Curve



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