

# GTM CORPORATION

ISSUED DATE :2005/10/06  
REVISED DATE :

## GL195

### PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

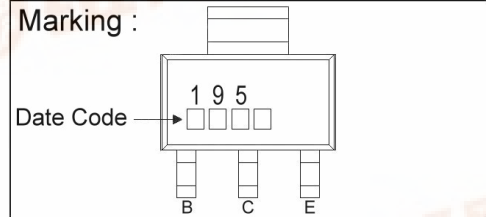
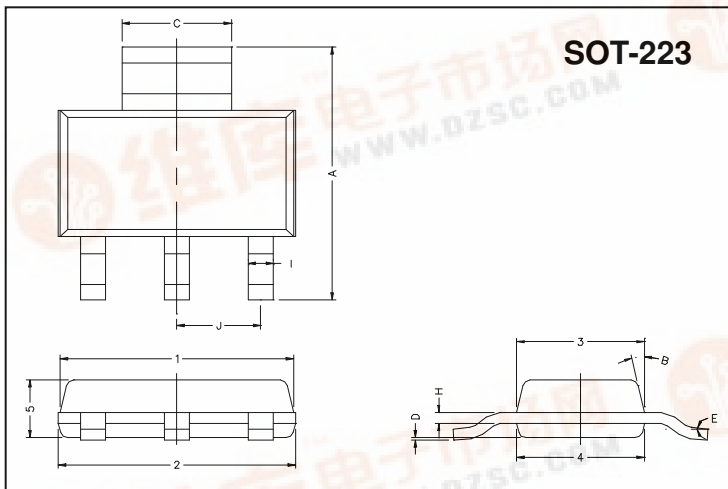
#### Description

The GL195 is designed for medium power amplifier applications.

#### Features

- -60 Volt  $V_{CEO}$
- 1 Amp continuous current
- Complementary to GL194

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

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	$V_{CBO}$	-80	V
Collector to Emitter Voltage	$V_{CEO}$	-60	V
Emitter to Base Voltage	$V_{EBO}$	-5	V
Collector Current (DC)	$I_c$	-1	A
Collector Current (Pulse)	$I_c$	-2	A
Base Current	$I_b$	-200	mA
Total Power Dissipation	$P_D$	2	W

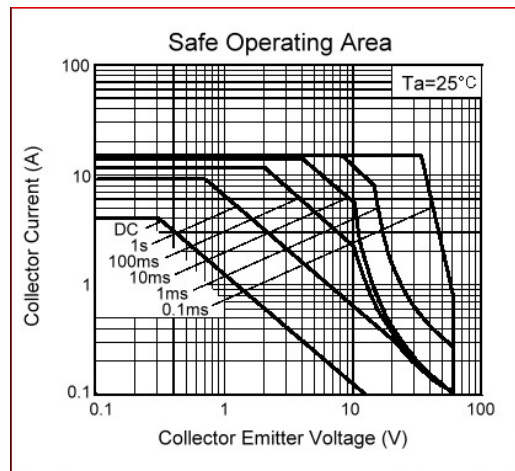
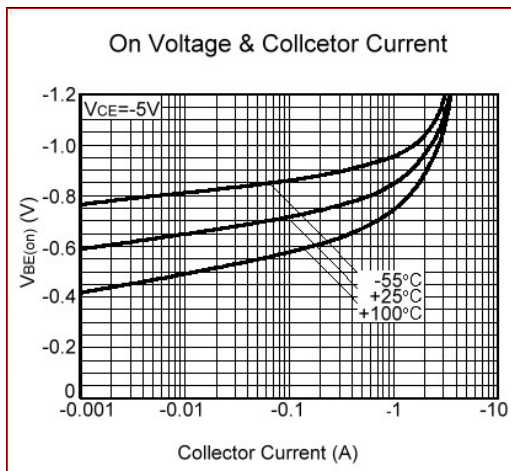
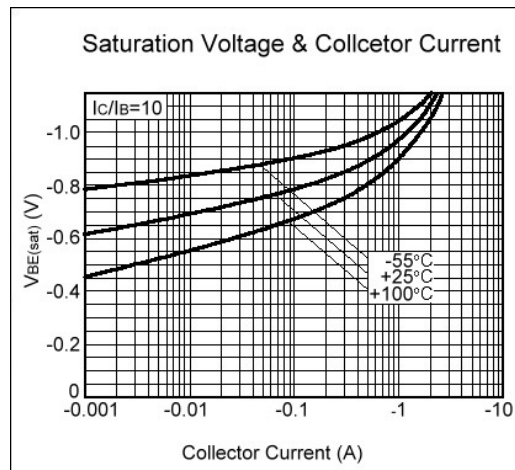
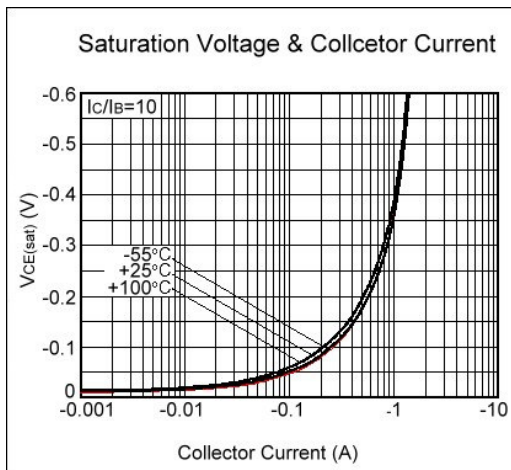
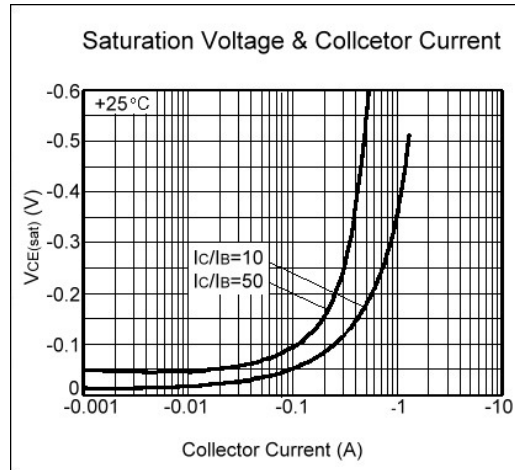
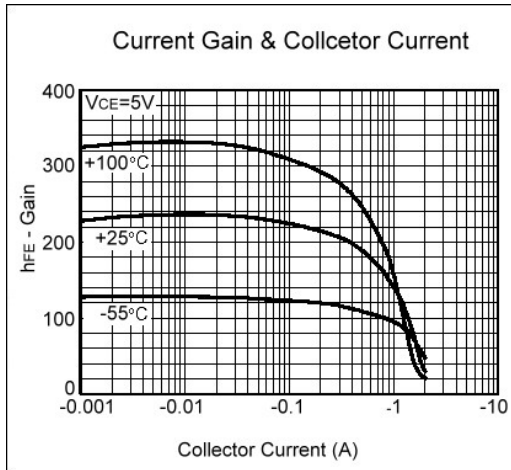
#### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ , unless otherwise stated)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
$V_{CBO}$	-80	-	-	V	$I_c = -100\mu\text{A}$ , $I_E = 0$
* $V_{CEO}$	-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	$V_{CB} = -60\text{V}$ , $I_E = 0$
$I_{CES}$	-	-	-100	nA	$V_{CES} = -60\text{V}$
$I_{EBO}$	-	-	-100	nA	$V_{EB} = -4\text{V}$ , $I_c = 0$
* $V_{CE(sat)1}$	-	-	-0.3	V	$I_c = -500\text{mA}$ , $I_B = -50\text{mA}$
* $V_{CE(sat)2}$	-	-	-0.6	V	$I_c = -1\text{A}$ , $I_B = -100\text{mA}$
* $V_{BE(sat)}$	-	-	-1.2	V	$I_c = -1\text{A}$ , $I_B = -100\text{mA}$
* $V_{BE(on)}$	-	-	-1.0	V	$V_{CE} = -5\text{V}$ , $I_c = -1\text{A}$
* $h_{FE1}$	100	-	-		$V_{CE} = -5\text{V}$ , $I_c = -1\text{mA}$
* $h_{FE2}$	100	-	300		$V_{CE} = -5\text{V}$ , $I_c = -500\text{mA}$
* $h_{FE3}$	80	-	-		$V_{CE} = -5\text{V}$ , $I_c = -1\text{A}$
* $h_{FE4}$	15	-	-		$V_{CE} = -5\text{V}$ , $I_c = -2\text{A}$
fT	150	-	-	MHz	$V_{CE} = -10\text{V}$ , $I_c = -50\text{mA}$ , $f = 100\text{MHz}$
$C_{ob}$	-	-	10	pF	$V_{CB} = -10\text{V}$ , $I_E = 0$ , $f = 1\text{MHz}$

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



## Characteristics Curve



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