GL949

PNP SILICON PLANAR HIGH CURRENT TRANSISTOR

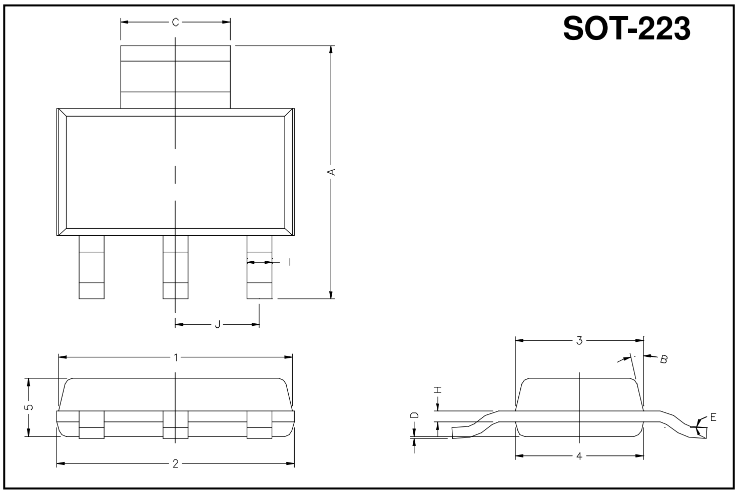
Description

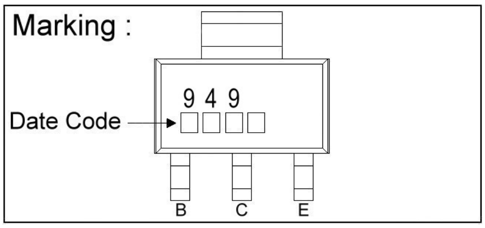
The GL949 is designed for general purpose switching and amplifier applications.

Features

- 6Amps continuous current, up to 20Amps pulse current
- 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℃

Parameter	Symbol	Ratings	Unit
Junction Temperature	Tj	+150	℃
Storage Temperature	Tstg	-55~+150	℃
Collector to Base Voltage	V_{CBO}	-50	V
Collector to Emitter Voltage	V_{CEO}	-30	V
Emitter to Base Voltage	V_{EBO}	-6	V
Collector Current (DC)	I_C	-5.5	A
Collector Current (Pulse)	I_{CM}	-20	A
Total Power Dissipation	P_D	3	W

***The power which can be dissipated assuming the device is mounted in typical manner on a PCB with copper equal to 2 inches x 2 inches.**

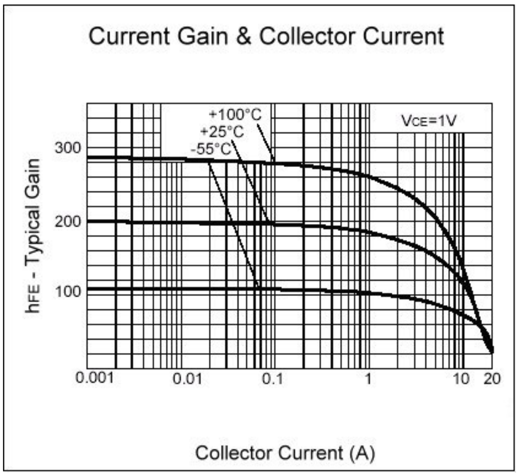
Electrical Characteristics (Ta = 25℃, unless otherwise stated)

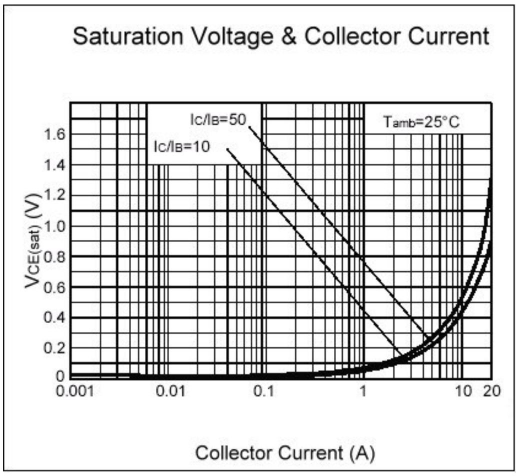
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	-50	-	-	V	I_C=-100uA , I_E=0
BV_{CER}	-50	-	-	V	I_C=-1uA, RB≤1kΩ
BV_{CEO}	-30	-	-	V	I_C=-10mA, I_B=0
BV_{EBO}	-6	-	-	V	I_E=-100uA ,I_C=0
I_{CBO}	-	-	-50	nA	V_{CB}=-40V, I_E=0
I_{CER}	-	-	-50	nA	V_{CB}=-40V, R≤1kΩ
I_{EBO}	-	-	-10	nA	V_{EB}=-6V, I_C=0
*$V_{CE(sat)}$1	-	-	-75	mV	I_C=-500mA, I_B=-20mA
*$V_{CE(sat)}$2	-	-	-140	mV	I_C=-1A, I_B=-20mA
*$V_{CE(sat)}$3	-	-	-270	mV	I_C=-2A, I_B=-200mA
*$V_{CE(sat)}$4	-	-	-440	mV	I_C=-5.5A, I_B=-500mA
*$V_{BE(sat)}$	-	-	-1.25	V	I_C=-5.5A, I_B=-500mA
*$V_{BE(on)}$	-	-	-1.06	V	V_{CE}=-1V, I_C=-5.5A
*h_{FE}1	100	-	-		V_{CE}=-1V, I_C=-10mA
*h_{FE}2	100	-	300		V_{CE}=-1V, I_C=-1A
*h_{FE}3	75	-	-		V_{CE}=-1V, I_C=-5A
*h_{FE}4	-	35	-		V_{CE}=-2V, I_C=-20A
fT	-	100	-	MHz	V_{CE}=-10V, I_C=-100mA, f=50MHz
Cob	-	122	-	pF	V_{CB}=-10V, I_E=0, f=1MHz

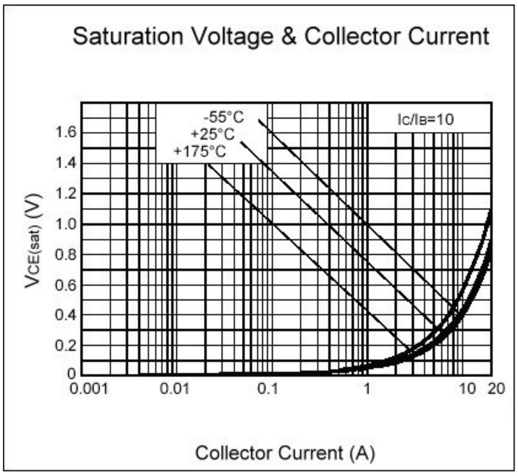
T_{on}	-	120	-	ns	V_{CC}=-10V, I_C=-4A, I_{B1}=-I_{B2}=-400mA
T_{off}	-	130	-		

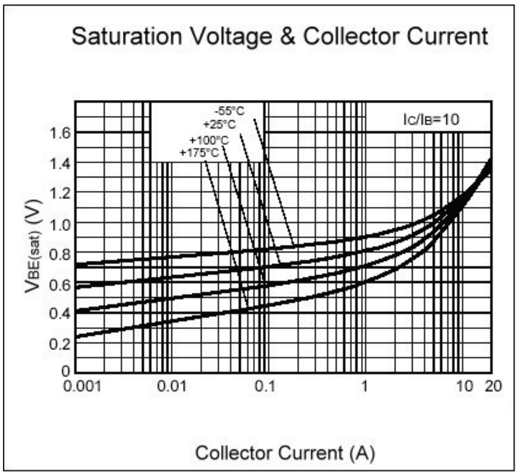
***Measured under pulse condition. Pulse width=300μs, Duty Cycle≤2%**

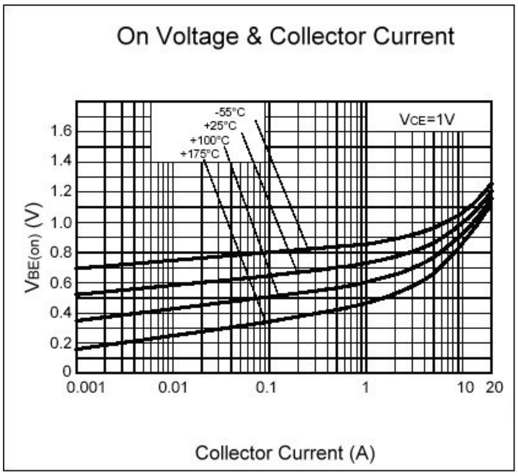
Characteristics Curve

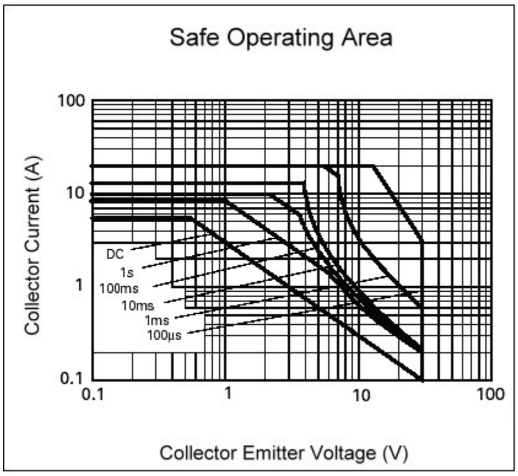

Current Gain & Collector Current


Saturation Voltage & Collector Current


Saturation Voltage & Collector Current


Saturation Voltage & Collector Current


On Voltage & Collector Current


Safe Operating Area

Head Office And Factory:
- **Taiwan**: No. 17-1 Tatung Rd. Fu Kou Hsin-Chu Industrial Park, Hsin-Chu, Taiwan, R. O. C.
TEL : 886-3-597-7061 FAX : 886-3-597-9220, 597-0785
- **China**: (201203) No.255, Jang-Jiang Tsai-Lueng RD. , Pu-Dung-Hsin District, Shang-Hai City, China
TEL : 86-21-5895-7671 ~ 4 FAX : 86-21-38950165