

GL158

NPN SILICON PLANAR HIGH CURRENT TRANSISTOR

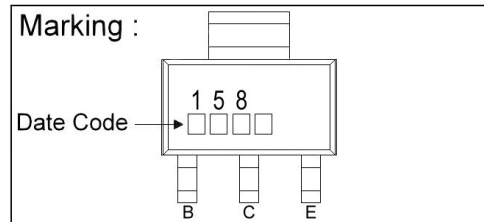
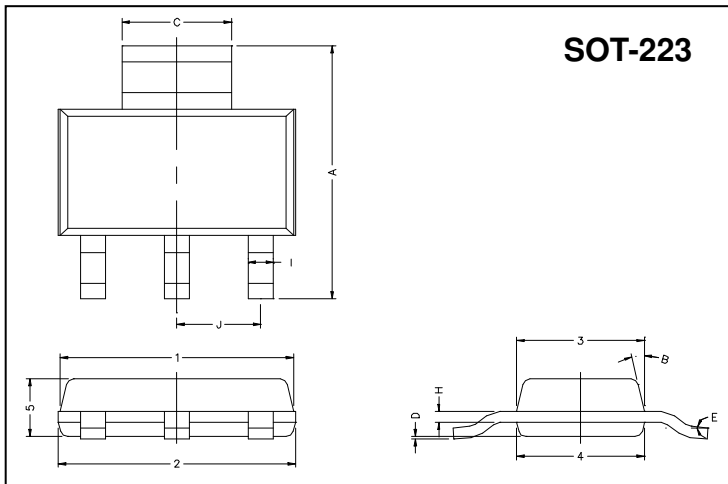
Description

The GL158 is designed for general purpose switching and amplifier applications.

Features

- 6 Amps continuous current, up to 20Amps 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}	150	V
Collector to Emitter Voltage	V _{CE0}	60	V
Emitter to Base Voltage	V _{EB0}	6	V
Collector Current (DC)	I _C	6	A
Collector Current (Pulse)	I _c	20	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)

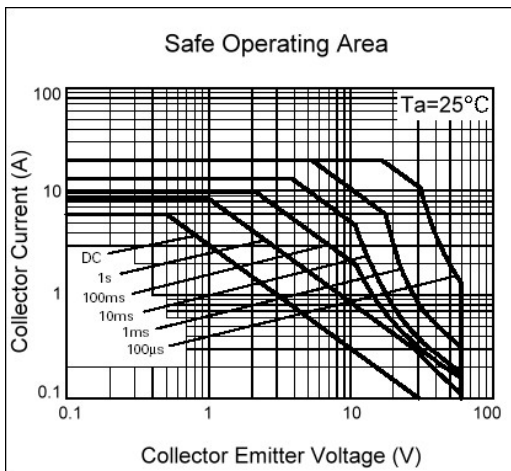
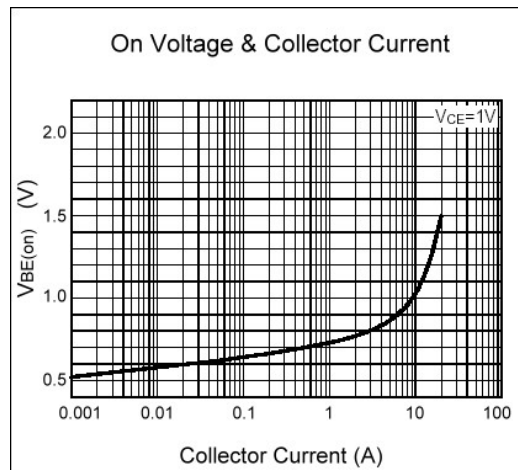
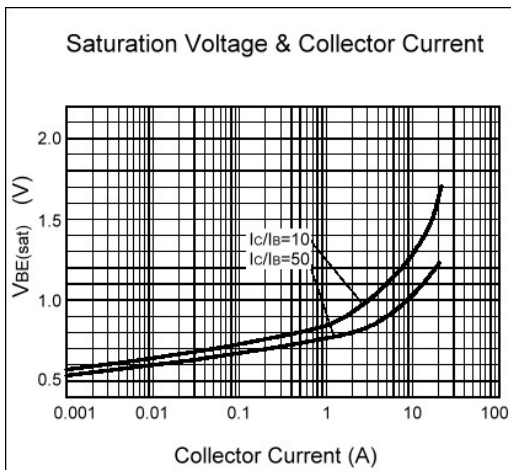
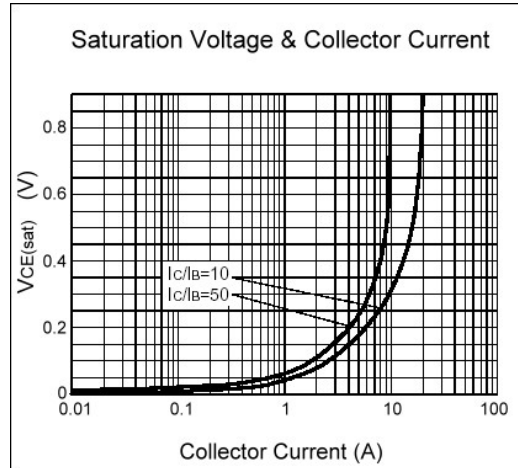
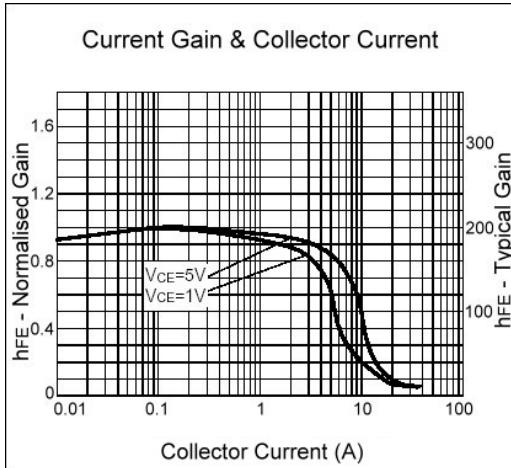
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
V _{CB0}	150	-	-	V	I _C =100uA, I _E =0
*V _{CE0}	60	-	-	V	I _C =10mA, I _B =0
V _{EB0}	6	-	-	V	I _E =100uA, I _C =0
I _{CB0}	-	-	50	nA	V _{CB} =120V, I _E =0
I _{CES}	-	-	50	nA	V _{CE} =60V
I _{EB0}	-	-	10	nA	V _{EB} =6V, I _C =0
*V _{CE(sat)1}	-	-	50	mV	I _C =100mA, I _B =5mA
*V _{CE(sat)2}	-	-	100	mV	I _C =1A, I _B =50mA
*V _{CE(sat)3}	-	-	170	mV	I _C =2A, I _B =50mA
*V _{CE(sat)4}	-	-	375	mV	I _C =6A, I _B =300mA
*V _{BE(sat)}	-	-	1.2	V	I _C =6A, I _B =300mA
*V _{BE(on)}	-	-	1.15	V	V _{CE} =1V, I _C =6A
*h _{FE1}	100	-	-		V _{CE} =1V, I _C =10mA
*h _{FE2}	100	200	300		V _{CE} =1V, I _C =2A
*h _{FE3}	75	-	-		V _{CE} =1V, I _C =5A
*h _{FE4}	25	-	-		V _{CE} =1V, I _C =10A
f _T	-	130	-	MHz	V _{CE} =10V, I _C =100mA, f=50MHz

Cob	-	45	-	pF	V _{CB} =10V, I _E =0, f=1MHz
ton	-	45	-	ns	V _{CC} =10V, I _C =1A, I _{B1} =I _{B2} =100mA
toff	-	1100	-		

*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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