

GL9401A

NPN SILICON PLANAR MEDIUM POWER HIGH GAIN TRANSISTOR

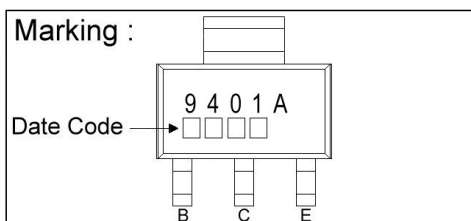
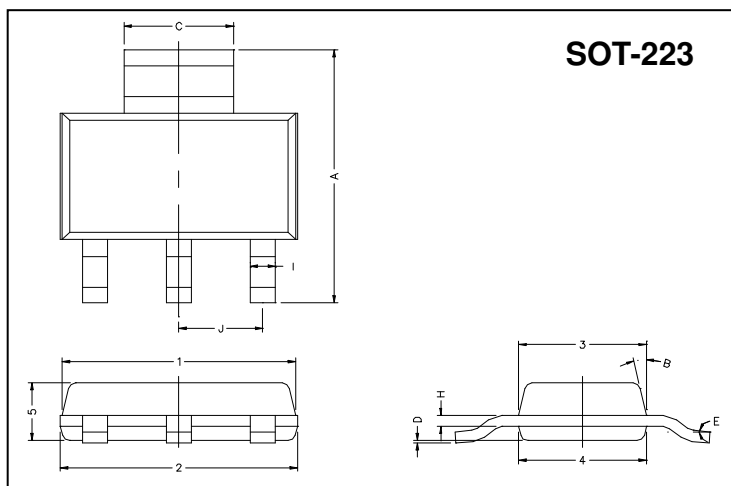
Description

The GL9401A is designed for general purpose switching and amplifier applications.

Features

- 5 Amps continuous current, up to 20Amps pulse current
- Low saturation voltages
- High Gain

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}	80	V
Collector to Emitter Voltage	V _{CEO}	30	V
Emitter to Base Voltage	V _{EBO}	5	V
Collector Current (DC)	I _C	5	A
Collector Current (Pulse)	I _{CM}	20	A
Total Power Dissipation	P _D	2.5	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.

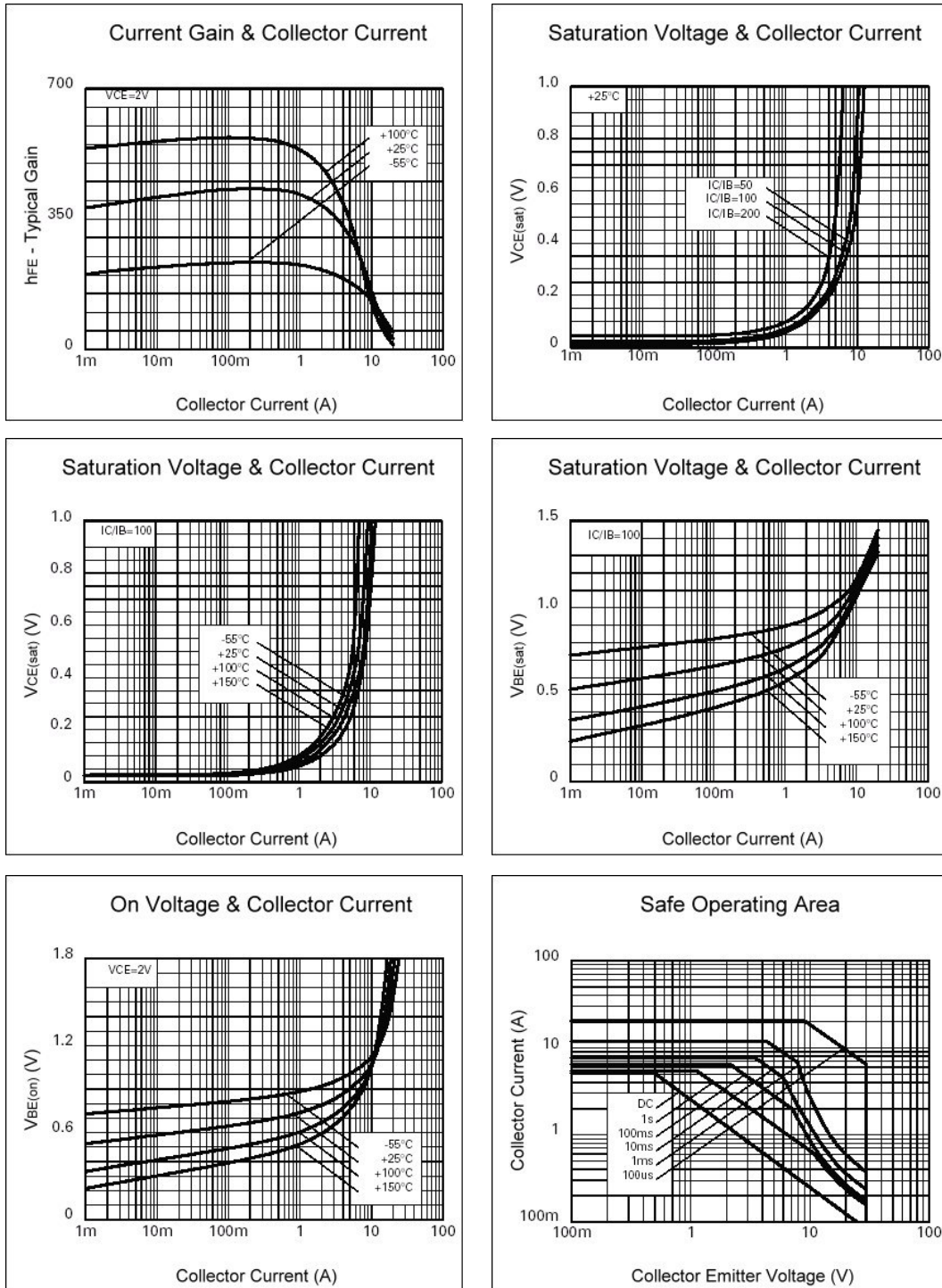
Electrical Characteristics (Ta = 25°C, unless otherwise stated)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
V _{CB0}	80	-	-	V	I _C =100uA, I _E =0
*V _{CE(sat)1}	80	-	-	V	I _C =100uA
V _{CEO}	30	-	-	V	I _C =10mA, I _B =0
V _{CEV}	80	-	-	V	I _C =10uA, V _{EB} =1V
V _{EBO}	5	-	-	V	I _E =100uA, I _C =0
I _{CB0}	-	-	10	nA	V _{CB} =35V, I _E =0
I _{CE(sat)1}	-	-	10	nA	V _{CE} =35V
I _{EBO}	-	-	10	nA	V _{EB} =4V, I _C =0
*V _{CE(sat)2}	-	-	60	mV	I _C =500mA, I _B =10mA
*V _{CE(sat)3}	-	-	100	mV	I _C =1A, I _B =10mA
*V _{CE(sat)4}	-	-	250	mV	I _C =3A, I _B =30mA
*V _{CE(sat)5}	-	-	330	mV	I _C =5A, I _B =50mA
*V _{BE(sat)}	-	-	1.05	V	I _C =5A, I _B =50mA
*V _{BE(on)}	-	-	1.0	V	V _{CE} =2V, I _C =5A
*h _{FE1}	280	-	-		V _{CE} =2V, I _C =10mA
*h _{FE2}	300	-	-		V _{CE} =2V, I _C =0.5A
*h _{FE3}	300	-	1200		V _{CE} =2V, I _C =1A
*h _{FE4}	180	-	-		V _{CE} =2V, I _C =5A

*hFE5	40	-	-		VCE=2V, IC=20A
fT	-	180	-	MHz	VCE=10V, IC=50mA, f=100MHz
Cob	-	45	60	pF	VCB=10V, IE=0, f=1MHz
ton	-	125	-	ns	VCC=10V, IC=4A, IB1=IB2=40mA
toff	-	380	-		

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

Characteristics Curve



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