

# GTM CORPORATION

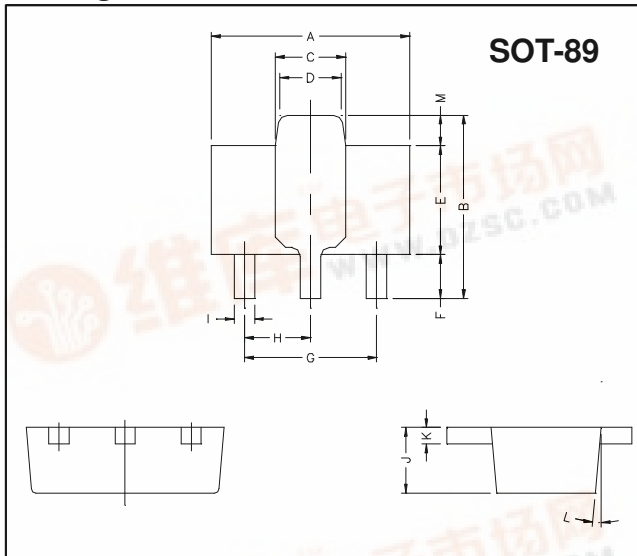
ISSUED DATE :2001/10/04  
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## GMA14 NPN EPITAXIAL PLANAR TRANSISTOR

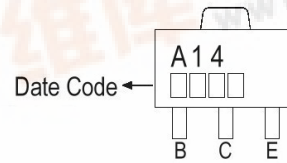
### Description

The GMA14 is a Darlington amplifier transistor designed for applications requiring extremely high current gain.

### Package Dimensions



### Marking :



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.4	4.6	G	3.00	REF.
B	4.05	4.25	H	1.50	REF.
C	1.50	1.70	I	0.40	0.52
D	1.30	1.50	J	1.40	1.60
E	2.40	2.60	K	0.35	0.41
F	0.89	1.20	L	5° TYP.	
			M	0.70 REF.	

### Absolute Maximum Ratings at Ta = 25°C

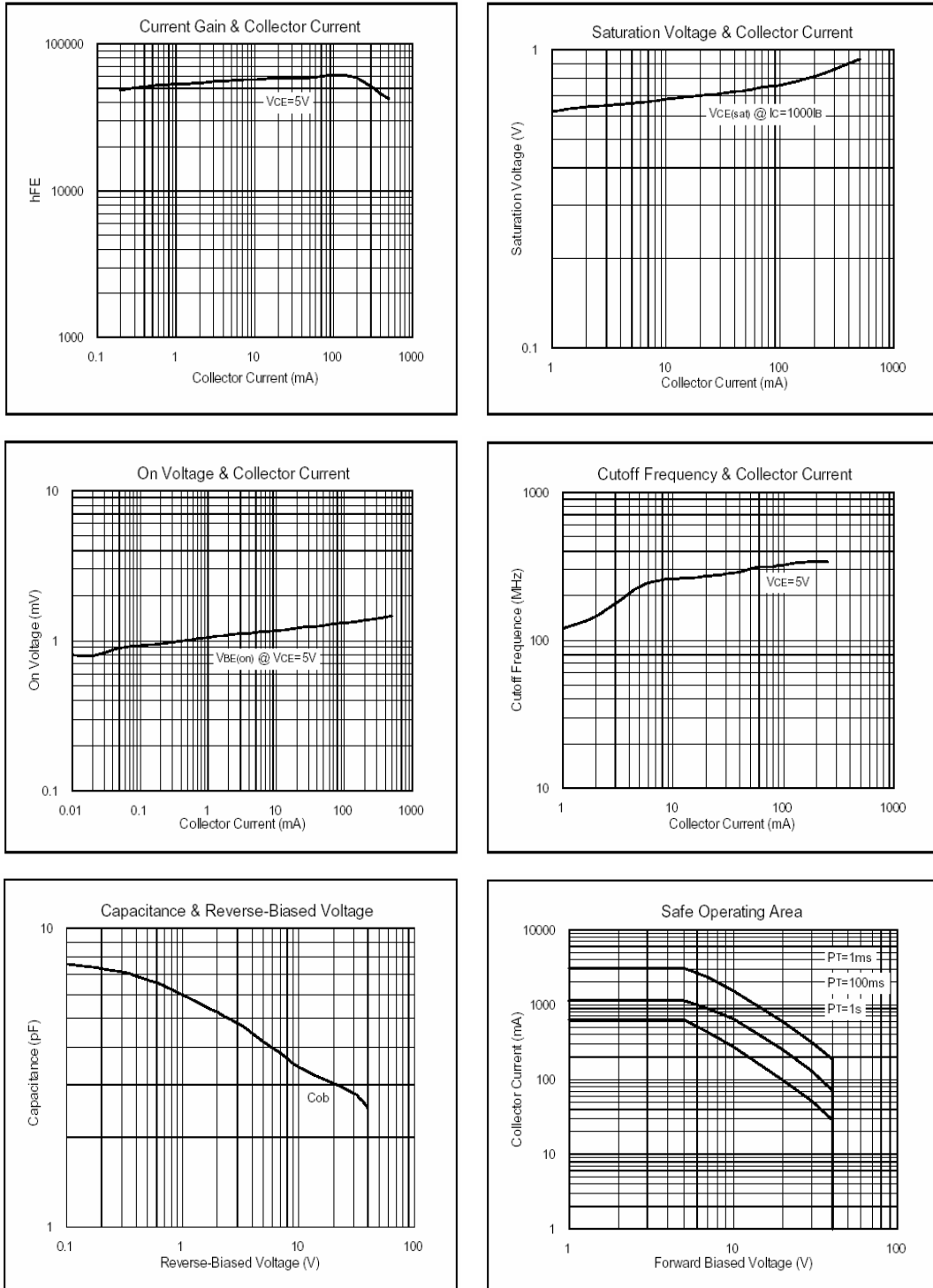
Parameter	Symbol	Ratings	Unit
Junction Temperature	T <sub>j</sub>	+150	°C
Storage Temperature	T <sub>stg</sub>	-55~+150	°C
Collector to Base Voltage	V <sub>CB0</sub>	30	V
Collector to Emitter Voltage	V <sub>CEO</sub>	30	V
Emitter to Base Voltage	V <sub>EBO</sub>	10	V
Collector Current	I <sub>c</sub>	500	mA
Total Power Dissipation	P <sub>D</sub>	1	W

### Electrical Characteristics (Ta = 25°C unless otherwise noted)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
V <sub>CB0</sub>	30	-	-	V	I <sub>c</sub> =100uA, I <sub>E</sub> =0
V <sub>CEO</sub>	30	-	-	V	I <sub>c</sub> =100uA, I <sub>B</sub> =0
V <sub>EBO</sub>	10	-	-	V	I <sub>E</sub> =10uA, I <sub>c</sub> =0
I <sub>CB0</sub>	-	-	100	nA	V <sub>CB</sub> =30V, I <sub>E</sub> =0
I <sub>EBO</sub>	-	-	100	nA	V <sub>EB</sub> =10V, I <sub>c</sub> =0
*V <sub>CE(sat)</sub>	-	-	1.5	V	I <sub>c</sub> =100mA, I <sub>B</sub> =0.1mA
*V <sub>BE(on)</sub>	-	-	2.0	V	V <sub>CE</sub> =5V, I <sub>c</sub> =100mA
*h <sub>FE1</sub>	10K	-	-		V <sub>CE</sub> =5V, I <sub>c</sub> =10mA
*h <sub>FE2</sub>	20K	-	-		V <sub>CE</sub> =5V, I <sub>c</sub> =100mA
f <sub>T</sub>	125	-	-	MHz	V <sub>CE</sub> =5V, I <sub>c</sub> =10mA, f=100MHz
C <sub>ob</sub>	-	-	6	pF	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz

\* Pulse Test: Pulse Width ≤ 380μs, Duty Cycle ≤ 2%

## Characteristics Curve



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