

## Bipolar Transistor Chip MEM13003TG

### General Description

- Switching regulator application.
- High voltage and high speed.
- Switching application.

### Features

- High Collector Voltage:700V
- Package:TO-92

### Pin Configuration

Pin	Description
1	EMITTER (E)
2	COLLECTOR (C)
3	BASE (B)



### Maximum Ratings (Ta=25℃)

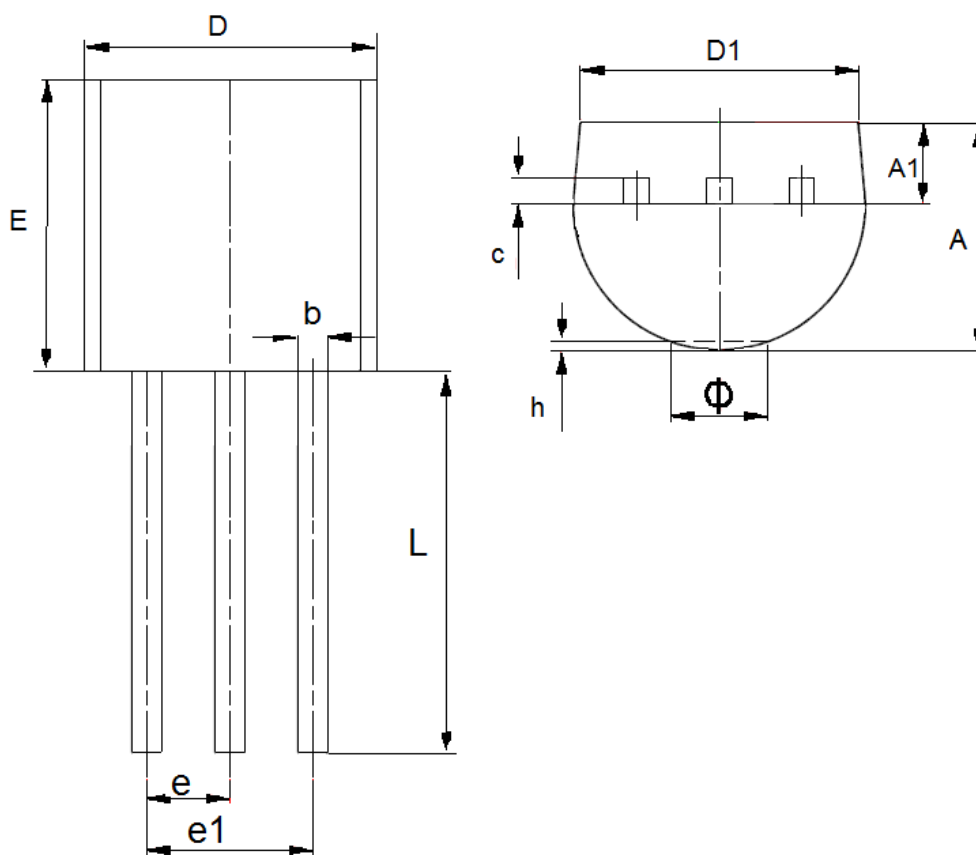
Characteristics		Symbol	Rating	Unit
Collector-Base Voltage		$V_{CBO}$	700	V
Collector-Emitter Voltage		$V_{CEO}$	400	V
Emitter-Base Voltage		$V_{EBO}$	9	V
Collector Current	DC	$I_C$	1.5	A
	Pulse	$I_{CP}$	3	
Base Current		$I_B$	0.75	A
Collector Power Dissipation (Ta=25℃)		$P_C$	0.9	W
Junction Temperature		$T_j$	150	℃
Storage Temperature Range		$T_{stg}$	-55~150	℃

## Electrical Characteristics (Ta=25°C)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	700	-	-	V
$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	400	-	-	V
$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	9	-	-	V
$I_{CBO}$	$V_{CB}=700V, I_E=0$	-	-	100	$\mu A$
$I_{CEO}$	$V_{CE}=400V, I_B=0$	-	-	50	$\mu A$
$I_{EBO}$	$V_{EB}=7V, I_C=0$	-	-	10	$\mu A$
$h_{FE}$	$V_{CE}=10V, I_C=0.2A$	20	-	40	-
	$V_{CE}=5V, I_C=0.5A$	15	-	40	-
$V_{BE(sat)}$	$I_C=0.5A, I_{BE}=0.1A$	-	-	1	V
	$I_C=1A, I_{BE}=0.25A$	-	-	1.2	
$V_{CE(sat)}$	$I_C=1A, I_{BE}=0.25A$	-	-	1	V
	$I_C=1.5A, I_{BE}=0.5$	-	-	3	

## Package Information

- Package Type: TO92



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	3.3	3.7	0.1299	0.1457
A1	1.1	1.4	0.0433	0.0551
b	0.38	0.55	0.015	0.0217
c	0.36	0.51	0.0142	0.0201
D	4.3	4.7	0.1693	0.185
D1	3.43	—	0.135	—
E	4.3	4.7	0.1693	0.185
e	1.27TYP		0.05TYP	
e1	2.44	2.64	0.0961	0.1039
L	14.1	14.5	0.5551	0.5709
h	0	0.38	0	0.015
Φ	—	1.6	—	0.063

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