

# EVVOSEMI<sup>®</sup>

THINK CHANGE DO



ESD



TVS



MOS



LDO



Diode



Sensor



DC-DC

## Product Specification

▶ Domestic	Part Number	TIP36C
▶ Overseas	Part Number	TIP36C
▶ Equivalent	Part Number	TIP36C

EV is the abbreviation of name EVVO

## PNP POWER TRANSISTORS

## Description:

The TIP36C is a silicon Epitaxial-Base PNP power transistor mounted in TO-3P plastic package.

## Features:

- Low Leakage Current
- Low Switching Loss
- Minimum Lot-to-Lot For Reliability Operation
- Low Spread of Dynamic Parameters

## Applications:

It is intended for use in power amplifier and switching applications.  
The complementary NPN type is TIP35C.

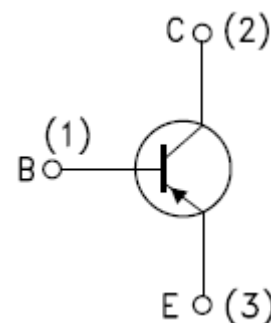
## Ordering Information

PART NUMBER	PACKAGE	BRAND
TIP36C	TO-3P	EVVOSEMI

$BV_{CEO}$	$P_{tot}$	$I_c$
-140V	125W	-10A



TO-3P Not to Scale



Internal Schematic Diagram

Absolute Maximum Ratings  $T_c = 25^\circ\text{C}$  unless otherwise specified

Symbol	Parameter	Value	Units
		TIP36C	
$V_{CBO}$	Collector-to-Base Voltage	-140	V
$V_{CEO}$	Collector-to-Emitter Voltage ( $I_B=0$ )	-140	
$V_{EBO}$	Emitter -to-Base Breakdown Voltage ( $I_c=0$ )	-5.0	
$I_c$	Collector Current	-10	A
$P_{tot}$	Total Dissipation at $T_{amb}=25^\circ\text{C}$	125	W
$T_j$	Operation Junction	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature Range	-55~150	

**Caution:** Stresses greater than those listed in "Absolute Maximum Ratings" Table may cause permanent damage to the device.

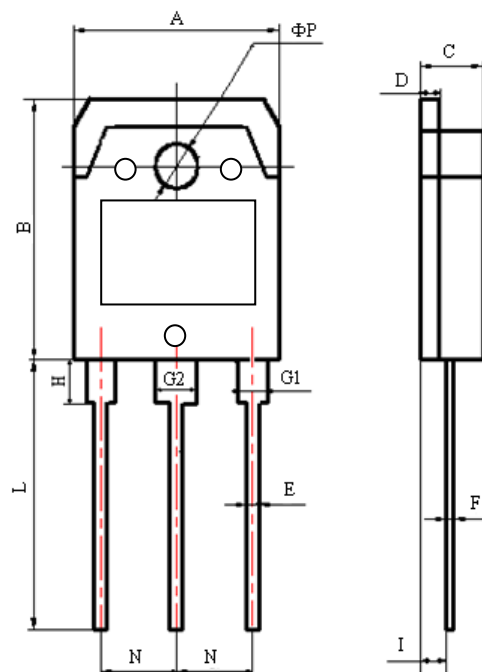
## Thermal Resistance

Symbol	Parameter	Maximum	Units	Test Condition
		TIP36C		
$R_{\theta JC}$	Junction-to-Case	1.0	$^\circ\text{C}/\text{W}$	Water cooled heat sink, $P_D$ adjusted for a peak junction temperature of $+150^\circ\text{C}$ .
$R_{\theta JA}$	Junction-to-Air	50	$^\circ\text{C}/\text{W}$	1 cubic foot chamber, free air.

**Electrical Characteristics** (  $T_J = 25^\circ\text{C}$  unless otherwise specified ):

Symbol	Parameter	Rating			Units	Test Conditions
		Min.	Typ.	Max.		
$I_{CBO}$	Collector-to-Base Cut-off Current	--	--	-5	uA	$V_{CB} = -140\text{V}, I_E = 0\text{A}$
$I_{CEO}$	Collector-to-Emitter Cut-off Current	--	--	-5		$V_{CE} = -140\text{V}, I_E = 0\text{A}$
$I_{EBO}$	Emitter-to-Base Cut-off Current	--	--	-5		$V_{BE} = -5\text{V}, I_C = 0\text{A}$
$V_{CBO}$	Collector-to-Base Voltage	-140	--	--	V	$I_C = -0.1\text{mA}$
$V_{CEO}$	Collector-to-Emitter Voltage	-140	--	--		$I_C = -10\text{mA}$
$V_{EBO}$	Emitter-to-Base Voltage	-5	--	--		$I_E = -5\text{mA}$
$h_{FE}$	DC Current Gain (Common Emitter)	55	--	160		$V_{CE} = 5\text{V}, I_C = 1\text{A}^*$
$h_{FE1}$	DC Current Gain (Common Emitter)	35	--	--		$V_{CE} = 5\text{V}, I_C = 5\text{A}$
$V_{CESAT}$	Collector-to-Emitter Saturation Voltage	--	--	-2.0	V	$I_C = -7\text{A}, I_B = -0.7\text{A}^*$
$V_{BESAT}$	Base-to-Emitter Saturation Voltage	--	--	-1.5		$V_{CE} = -5\text{V}, I_C = -5\text{A}$
$f_T$	Characteristic Frequency	--	30	--	MHz	$V_{CE} = -5\text{V}, I_C = -1\text{A}, f = 1\text{MHz}$
*Pulsed: Pulse duration $\leq 300\mu\text{s}$ , duty cycle $\leq 2\%$						

## TO-3P MECHANICAL DATA



DIM.	mm	
	MIN	MAX
A	15.10	15.90
B	19.30	20.30
C	4.70	4.90
D	1.40	1.60
E	0.90	1.10
F	0.50	0.70
G1	2.00	2.20
G2	3.00	3.20
H	3.00	3.60
I	1.20	1.60
L	19.00	21.00
N	5.25	5.65
$\Phi P$	3.10	3.30

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