



## PNP TIP36-A-B-C

### SILICON POWER TRANSISTORS

They are PNP power transistors mounted in jedec TO-3PN. They are intended for use in general purpose power amplifier and switching applications.  
 NPN complements are TIP35-A-B-C  
 Compliance to RoHS.

#### ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings	Value	Unit	
V <sub>CBO</sub>	Collector-Base Voltage	TIP36	-40	V
		TIP36A	-60	
		TIP36B	-80	
		TIP36C	-100	
V <sub>CEO</sub>	Collector-Emitter Voltage	TIP36	-40	V
		TIP36A	-60	
		TIP36B	-80	
		TIP36C	-100	
V <sub>EBO</sub>	Emitter-Base Voltage	TIP36	-5	V
		TIP36A		
		TIP36B		
		TIP36C		
I <sub>C</sub>	Collector Current	TIP36	-25	A
		TIP36A		
		TIP36B		
		TIP36C		
I <sub>CM</sub>	Collector Peak Current	TIP36	-40	A
		TIP36A		
		TIP36B		
		TIP36C		

## PNP TIP36-A-B-C

### ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit
$I_B$	Base Current	TIP36	-5	A
		TIP36A		
		TIP36B		
		TIP36C		
$P_c$	Power Dissipation	@ $T_c < 25^\circ$	125	Watts
		TIP36		
		TIP36A		
		TIP36B		
		TIP36C		
		@ $T_a < 25^\circ$	3.5	
		TIP36		
		TIP36A		
TIP36B				
TIP36C				
$T_J$	Junction Temperature	—	150	$^\circ\text{C}$
		TIP36		
		TIP36A		
		TIP36B		
TIP36C				
$T_s$	Storage Temperature range	TIP36	-65 to +150	
		TIP36A		
		TIP36B		
		TIP36C		

### THERMAL CHARACTERISTICS

Symbol	Ratings		Value	Unit
$R_{thJ-MB}$	From junction to mounting base	TIP36	1	$^\circ\text{C/W}$
		TIP36A		
		TIP36B		
		TIP36C		
$R_{thJ-A}$	From junction to ambient in free air	TIP36	35.7	$^\circ\text{C/W}$
		TIP36A		
		TIP36B		
		TIP36C		

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### ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

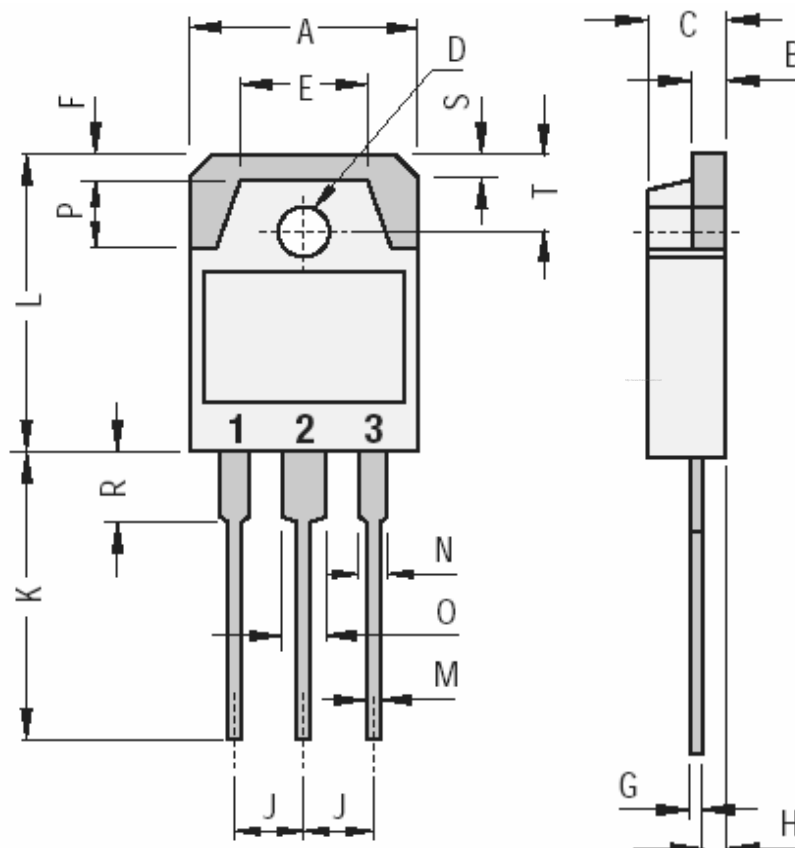
Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit		
$I_{CES}$	Collector Cutoff Current	$I_E = 0, V_{CE} = -V_{CEO}$	TIP36	-	-	-0.7	Ma	
			TIP36A					
			TIP36B					
			TIP36C					
$I_{CEO}$	Collector Cutoff Current	$I_B = 0, V_{CE} = -30V$	TIP36	-	-	-1	mA	
			TIP36A					
		$I_B = 0, V_{CE} = -60V$	TIP36B	-	-	-1		
			TIP36C					
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -5 V, I_C = 0$	TIP36	-	-	-1	mA	
			TIP36A					
			TIP36B					
			TIP36C					
$V_{CEO}$	Collector-Emitter Breakdown Voltage (*)	$I_C = -30 mA, I_B = 0$	TIP36	-40	-	-	V	
			TIP36A	-60	-	-		
			TIP36B	-80	-	-		
			TIP36C	-100	-	-		
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	$I_C = -15 A, I_B = -1.5 A$	TIP36	-	-	-1.8	V	
			TIP36A					
			TIP36B					
			TIP36C					
			$I_C = -25 A, I_B = -5 A$	TIP36	-	-	-4	V
				TIP36A				
				TIP36B				
				TIP36C				
$V_{BE(on)}$	Base-Emitter Voltage (*)	$I_C = -15 A, V_{CE} = -4 V$	TIP36	-	-	-2	V	
			TIP36A					
			TIP36B					
			TIP36C					
			$I_C = -25 A, V_{CE} = -4 V$	TIP36	-	-	-4	V
				TIP36A				
				TIP36B				
				TIP36C				
$h_{FE}$	DC Current Gain (*)	$V_{CE} = -4 V, I_C = -1.5 A$	TIP36	25	-	-	-	
			TIP36A					
			TIP36B					
			TIP36C					
			$V_{CE} = -4 V, I_C = -15 A$	TIP36	15	-		75
				TIP36A				
				TIP36B				
				TIP36C				

(\*) Pulse Width  $\approx 300 \mu s$ , Duty Cycle  $\angle 2.0\%$

## PNP TIP36-A-B-C

Symbol	Ratings	Test Condition(s)	Min	Typ	Mx	Unit	
$f_T$	Current Gain-Bandwidth Product	$V_{CE} = -10\text{ V}$ , $I_C = -10\text{ A}$ , $f = 1\text{ kHz}$	TIP36	3	-	-	MHz
			TIP36A				
			TIP36B				
			TIP36C				

### MECHANICAL DATA CASE TO3PN Non Isolated Plastic Package



DIMENSIONS (mm)		
	Min.	Max.
A	15.20	1600
B	1.90	2.10
C	4.60	5.00
D	3.10	3.30
E		9.60
F		2.00
G	0.35	0.55
H		1.40
J	5.35	5.55
K	20.00	
L	19.60	20.20
M	0.95	1.25
N		2.00
O		3.00
P		4.00
R		4.00
S		1.80
T	4.80	5.20

Pin 1 :	Base
Pin 2 :	Collector
Pin 3 :	Emitter
Case :	Collector

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