



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 _{CBO}	Collector-Base Voltage	TIP36	-40	V
		TIP36A	-60	
		TIP36B	-80	
		TIP36C	-100	
V _{CEO}	Collector-Emitter Voltage	TIP36	-40	V
		TIP36A	-60	
		TIP36B	-80	
		TIP36C	-100	
V _{EBO}	Emitter-Base Voltage	TIP36	-5	V
		TIP36A		
		TIP36B		
		TIP36C		
I _C	Collector Current	TIP36	-25	A
		TIP36A		
		TIP36B		
		TIP36C		
I _{CM}	Collector Peak Current	TIP36	-40	A
		TIP36A		
		TIP36B		
		TIP36C		

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ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings			Value	Unit
I _B	Base Current		TIP36	-5	A
			TIP36A		
			TIP36B		
			TIP36C		
P _C	Power Dissipation	@ T _c < 25°	TIP36	125	Watts
			TIP36A		
			TIP36B		
			TIP36C		
		@ T _a < 25°	TIP36	3.5	
			TIP36A		
			TIP36B		
			TIP36C		
T _J	Junction Temperature		TIP36	150	°C
			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			1	$^\circ\text{C/W}$
R_{thJ-A}	From junction to ambient in free air			35.7	$^\circ\text{C/W}$

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ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

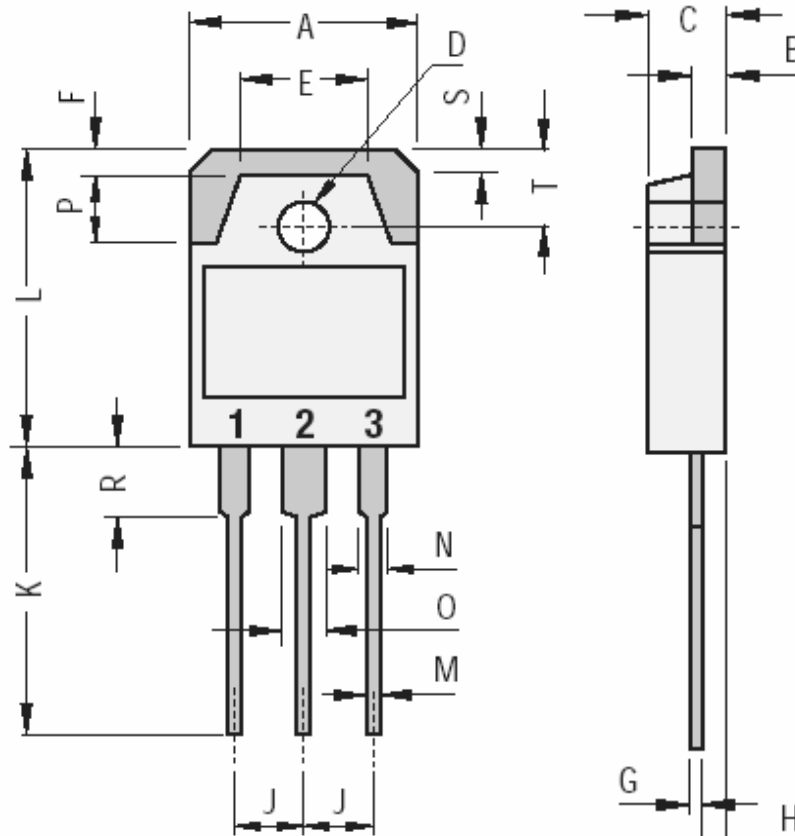
Symbol	Ratings	Test Condition(s)		Min	Typ	Max	Unit
I_{CES}	Collector Cutoff Current	$I_E = 0, V_{CE} = -V_{CEO}$	TIP36	-	-	-0.7	Ma
			TIP36A				
			TIP36B				
			TIP36C				
I_{CEO}	Collector Cutoff Current	$I_B = 0, V_{CE} = -30V$	TIP36	-	-	-1	mA
			TIP36A				
		$I_B = 0, V_{CE} = -60V$	TIP36B	-	-	-1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

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

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

MECHANICAL DATA CASE TO3PN Non Isolated Plastic Package



DIMENSIONS (mm)		
	Min.	Max.
A	15.20	16.00
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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