PNP TIP34-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 TIP33-A-B-C
Compliance to RoHS.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit
V_{CBO}	Collector-Base Voltage	TIP34	-40	V
		TIP34A	-60	
		TIP34B	-80	
		TIP34C	-100	
V_{CEO}	Collector-Emitter Voltage	TIP34	-40	V
		TIP34A	-60	
		TIP34B	-80	
		TIP34C	-100	
V_{EBO}	Emitter-Base Voltage	TIP34	-5	V
		TIP34A		
		TIP34B		
		TIP34C		
I_C	Collector Current	TIP34	-10	A
		TIP34A		
		TIP34B		
		TIP34C		
I_{CM}	Collector Peak Current	TIP34	-15	A
		TIP34A		
		TIP34B		
		TIP34C		

PNP TIP34-A-B-C

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings			Value	Unit
I_B	Base Current		TIP34	-3	A
			TIP34A		
			TIP34B		
			TIP34C		
P_C	Power Dissipation	@ T_c < 25°	TIP34	80	Watts
			TIP34A		
			TIP34B		
			TIP34C		
		@ T_a < 25°	TIP34	3.5	
			TIP34A		
			TIP34B		
			TIP34C		
T_J	Junction Temperature		TIP34	150	°C
			TIP34A		
			TIP34B		
			TIP34C		
T_S	Storage Temperature range		TIP34	-65 to +150	
			TIP34A		
			TIP34B		
			TIP34C		

THERMAL CHARACTERISTICS

Symbol	Ratings		Value	Unit
R_{thJ-MB}	From junction to mounting base	TIP34	1.56	°C/W
		TIP34A		
		TIP34B		
		TIP34C		
R_{thJ-A}	From junction to ambient in free air	TIP34	35.7	°C/W
		TIP34A		
		TIP34B		
		TIP34C		

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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}	TIP34	-	-	-0.4	Ma
			TIP34A				
			TIP34B				
			TIP34C				
I_{CEO}	Collector Cutoff Current	I_B= 0, V_{CE} = -30V	TIP34	-	-	-0.7	mA
			TIP34A				
		I_B= 0, V_{CE} = -60V	TIP34B	-	-	-0.7	
			TIP34C				
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5 V I_C= 0	TIP34	-	-	-1	mA
			TIP34A				
			TIP34B				
			TIP34C				
V_{CEO}	Collector-Emitter Breakdown Voltage (*)	I_C= -30 mA I_B= 0	TIP34	-40	-	-	V
			TIP34A	-60	-	-	
			TIP34B	-80	-	-	
			TIP34C	-100	-	-	
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	I_C= -3 A I_B= -300 mA	TIP34	-	-	-1	V
			TIP34A				
			TIP34B				
			TIP34C				
		I_C= -10 A I_B= -2.5 mA	TIP34	-	-	-4	V
			TIP34A				
			TIP34B				
			TIP34C				
$V_{BE(on)}$	Base-Emitter Voltage (*)	I_C= -3 A V_{CE}= -4 V	TIP34	-	-	-1.6	V
			TIP34A				
			TIP34B				
			TIP34C				
		I_C= -10 A V_{CE}= -4 V	TIP34	-	-	-3	V
			TIP34A				
			TIP34B				
			TIP34C				
h_{FE}	DC Current Gain (*)	V_{CE}= -4 V I_C= -1 A	TIP34	40	-	-	-
			TIP34A				
			TIP34B				
			TIP34C				
		V_{CE}= -4 V I_C= -3 A	TIP34	20	-	100	
			TIP34A				
			TIP34B				
			TIP34C				

(*) Pulse Width ≈ 300 μs, Duty Cycle ∠ 2.0%

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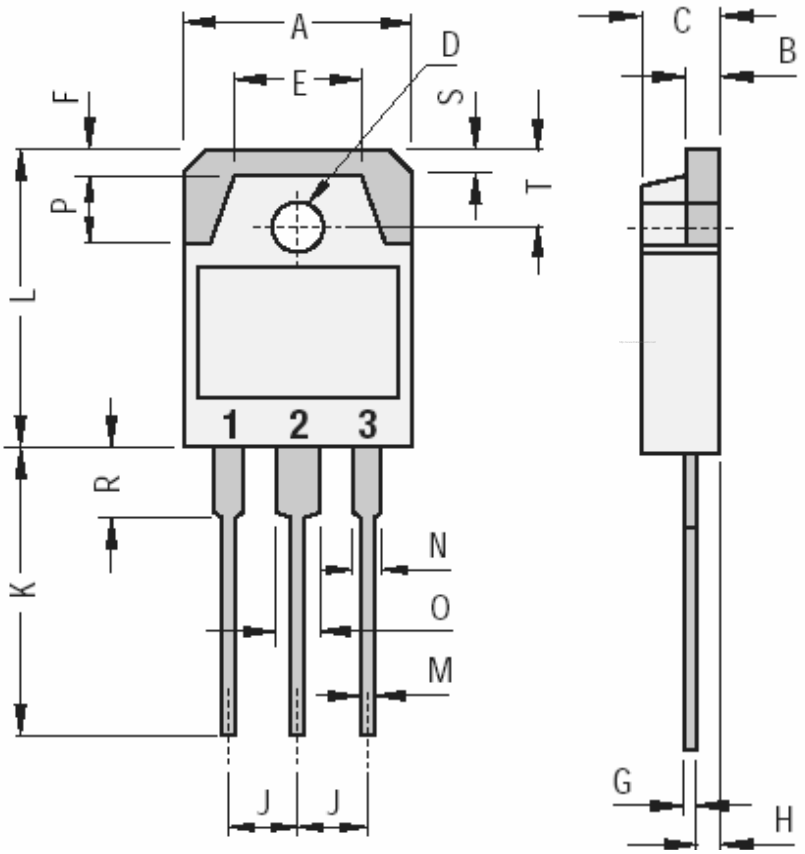
Symbol	Ratings	Test Condition(s)		Min	Typ	Max	Unit
f_T	Current Gain-Bandwidth Product	V_{CE}= -10 V I_C= -0.5 A f= 1kHz	TIP34 TIP34A TIP34B TIP34C	3	-	-	MHz

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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