

Silicon PNP Power Transistors

TIP34/34A/34B/34C

DESCRIPTION

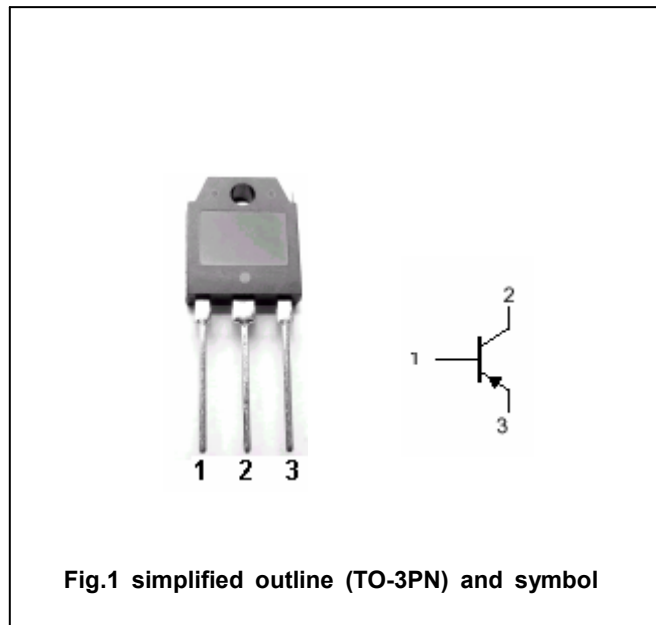
- With TO-3PN package
- Complement to type TIP33/33A/33B/33C
- DC current gain $h_{FE}=40(\text{Min})@I_C=1.0A$

APPLICATIONS

- Designed for use in general purpose power amplifier and switching applications.

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

ABSOLUTE MAXIMUM RATINGS($T_C=25^\circ\text{C}$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	TIP34	Open emitter	-40	V
		TIP34A		-60	
		TIP34B		-80	
		TIP34C		-100	
V_{CEO}	Collector-emitter voltage	TIP34	Open base	-40	V
		TIP34A		-60	
		TIP34B		-80	
		TIP34C		-100	
V_{EBO}	Emitter-base voltage		Open collector	-5	V
I_C	Collector current			-10	A
I_{CM}	Collector current-peak			-15	A
I_B	Base current			-3	A
P_C	Collector power dissipation		$T_C=25^\circ\text{C}$	80	W
T_j	Junction temperature			150	$^\circ\text{C}$
T_{stg}	Storage temperature			-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.56	$^\circ\text{C}/W$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	TIP34	$I_C = -30mA ; I_B = 0$	-40			V
		TIP34A		-60			
		TIP34B		-80			
		TIP34C		-100			
$V_{CE(sat)-1}$	Collector-emitter saturation voltage		$I_C = -3A ; I_B = -0.3A$			-1.0	V
$V_{CE(sat)-2}$	Collector-emitter saturation voltage		$I_C = -10A ; I_B = -2.5A$			-4.0	V
V_{BE-1}	Base-emitter on voltage		$I_C = -3A ; V_{CE} = -4V$			-1.6	V
V_{BE-2}	Base-emitter on voltage		$I_C = -10A ; V_{CE} = -4V$			-3.0	V
I_{CEO}	Collector cut-off current	TIP34/34A	$V_{CE} = -30V ; I_B = 0$			-0.7	mA
		TIP34B/34C	$V_{CE} = -60V ; I_B = 0$				
I_{CES}	Collector cut-off current	TIP34	$V_{CE} = -40V ; V_{EB} = 0$			-0.4	mA
		TIP34A	$V_{CE} = -60V ; V_{EB} = 0$				
		TIP34B	$V_{CE} = -80V ; V_{EB} = 0$				
		TIP34C	$V_{CE} = -100V ; V_{EB} = 0$				
I_{EBO}	Emitter cut-off current		$V_{EB} = -5V ; I_C = 0$			-1.0	mA
h_{FE-1}	DC current gain		$I_C = -1A ; V_{CE} = -4V$	40			
h_{FE-2}	DC current gain		$I_C = -3A ; V_{CE} = -4V$	20		100	
f_T	Transition frequency		$I_C = -0.5A ; V_{CE} = -10V ; f = 1MHz$	3.0			MHz

TIP34/34A/34B/34C

