

TIP35 TIP35A TIP35B TIP35C NPN
TIP36 TIP36A TIP36B TIP36C PNP

**COMPLEMENTARY
SILICON POWER TRANSISTORS**



TO-218 TRANSISTOR CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR TIP35 and TIP36 series devices are complementary silicon power transistors manufactured by the epitaxial base process, designed for high current amplifier and switching applications.

MARKING: FULL PART NUMBER

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

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Peak Collector Current
Continuous Base Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL	TIP35 TIP36	TIP35A TIP36A	TIP35B TIP36B	TIP35C TIP36C	UNITS
V_{CBO}	40	60	80	100	V
V_{CEO}	40	60	80	100	V
V_{EBO}			5.0		V
I_C			25		A
I_{CM}			40		A
I_B			5.0		A
P_D			125		W
T_J, T_{stg}			-65 to +150		$^\circ\text{C}$
θ_{JC}			1.0		$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS: ($T_C=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CEO}	$V_{CE}=30\text{V}$ (TIP35, TIP35A, TIP36, TIP36A)		1.0	mA
I_{CEO}	$V_{CE}=60\text{V}$ (TIP35B, TIP35C, TIP36B, TIP36C)		1.0	mA
I_{CES}	$V_{CE}=\text{Rated } V_{CEO}$		0.7	mA
I_{EBO}	$V_{EB}=5.0\text{V}$		1.0	mA
BV_{CEO}	$I_C=30\text{mA}$ (TIP35, TIP36)	40		V
BV_{CEO}	$I_C=30\text{mA}$ (TIP35A, TIP36A)	60		V
BV_{CEO}	$I_C=30\text{mA}$ (TIP35B, TIP36B)	80		V
BV_{CEO}	$I_C=30\text{mA}$ (TIP35C, TIP36C)	100		V
$V_{CE(SAT)}$	$I_C=15\text{A}, I_B=1.5\text{A}$		1.8	V
$V_{CE(SAT)}$	$I_C=25\text{A}, I_B=5.0\text{A}$		4.0	V
$V_{BE(ON)}$	$V_{CE}=4.0\text{V}, I_C=15\text{A}$		2.0	V
$V_{BE(ON)}$	$V_{CE}=4.0\text{V}, I_C=25\text{A}$		4.5	V
h_{FE}	$V_{CE}=4.0\text{V}, I_C=1.5\text{A}$	25		
h_{FE}	$V_{CE}=4.0\text{V}, I_C=15\text{A}$	10	100	
h_{fe}	$V_{CE}=10\text{V}, I_C=1.0\text{A}, f=1.0\text{kHz}$	25		
f_T	$V_{CE}=10\text{V}, I_C=1.0\text{A}, f=1.0\text{MHz}$	3.0		MHz

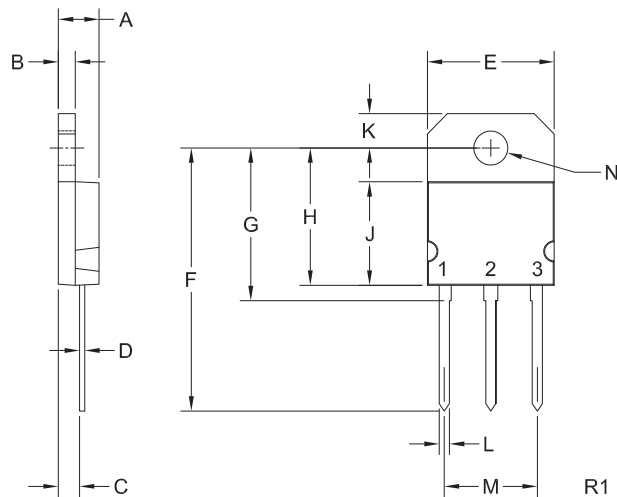
R2 (18-July 2013)

TIP35	TIP35A	TIP35B	TIP35C	NPN
TIP36	TIP36A	TIP36B	TIP36C	PNP

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TO-218 TRANSISTOR CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Base
- 2) Collector
- 3) Emitter
- Tab) Collector

**MARKING:
FULL PART NUMBER**

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.185	0.193	4.70	4.90
B	0.047	0.082	1.20	2.08
C	0.098		2.49	
D	0.019	0.030	0.48	0.76
E	0.578	0.598	14.68	15.19
F	1.220		30.99	
G	0.708		17.98	
H	-	0.637	-	16.18
J	-	0.480	-	12.19
K	0.155	0.163	3.94	4.14
L	0.043	0.051	1.09	1.30
M	0.425	0.437	10.80	11.10
N	0.157	0.161	3.99	4.09

TO-218 Transistor (REV: R1)

R2 (18-July 2013)