

# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

TIP35, A, B, C NPN

TIP36, A, B, C PNP

COMPLEMENTARY SILICON  
POWER TRANSISTORS

T0-3P CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR TIP35, TIP36 Series types are Complementary Silicon Power Transistors manufactured by the Epitaxial-Base Process designed for high current amplifier and switching applications.

## MAXIMUM RATINGS (T<sub>C</sub>=25°C unless otherwise noted)

	SYMBOL	TIP35 TIP36	TIP35A TIP36A	TIP35B TIP36B	TIP35C TIP36C	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	40	60	80	100	V
Collector-Emitter Voltage	V <sub>CEO</sub>	40	60	80	100	V
Emitter-Base Voltage	V <sub>EBO</sub>			5.0		A
Collector Current	I <sub>C</sub>			25		A
Collector Current (Peak)	I <sub>CM</sub>			40		A
Base Current	I <sub>B</sub>			5.0		A
Power Dissipation	P <sub>D</sub>			125		W
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>		-65 TO +150			°C
Thermal Resistance	θ <sub>JC</sub>			1.0		°C/W

## ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	TIP35 TIP36		TIP35A TIP36A		TIP35B TIP36B		TIP35C TIP36C		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
I <sub>CEO</sub>	V <sub>CE</sub> =30V		1.0		1.0		-		-	mA
I <sub>CEO</sub>	V <sub>CE</sub> =60V		-		-		1.0		1.0	mA
I <sub>CES</sub>	V <sub>CE</sub> =Rated V <sub>CEO</sub>		0.7		0.7		0.7		0.7	mA
I <sub>EBO</sub>	V <sub>EB</sub> =5.0V		1.0		1.0		1.0		1.0	mA
BV <sub>CEO</sub>	I <sub>C</sub> =30mA	40		60		80		100		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =15A, I <sub>B</sub> =1.5A		1.8		1.8		1.8		1.8	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =25A, I <sub>B</sub> =5.0A		4.0		4.0		4.0		4.0	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =4.0V, I <sub>C</sub> =15A		2.0		2.0		2.0		2.0	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =4.0V, I <sub>C</sub> =25A		4.0		4.0		4.0		4.0	V
h <sub>FE</sub>	V <sub>CE</sub> =4.0V, I <sub>C</sub> =1.5A	25		25		25		25		
h <sub>FE</sub>	V <sub>CE</sub> =4.0V, I <sub>C</sub> =15A	10	50	10	50	10	50	10	50	
h <sub>fe</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =1.0A, f=1.0kHz	25		25		25		25		
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =1.0A, f=1.0MHz	300		300		300		300		MHz