

# TIP35C TIP36B/36C

## COMPLEMENTARY SILICON HIGH POWER TRANSISTORS

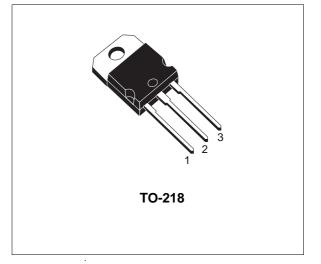
SGS-THOMSON PREFERRED SALESTYPE

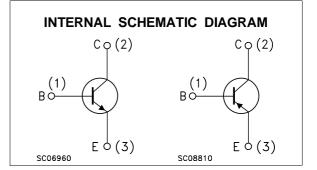
#### DESCRIPTION

The TIP35C is a silicon epitaxial-base NPN transistors in TO-218 plastic package. It is intented for use in power amplifier and switching applications.

TIP36B is a silicon PNP transistor.

The complementary PNP type for TIP35C is TIP36C.





#### **ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter		Value		
		NPN		TIP35C	
		PNP	TIP36B	TIP36C	
V <sub>СВО</sub>	Collector-Base Voltage (I <sub>E</sub> = 0)		80	100	V
Vceo	Collector-Emitter Voltage (I <sub>B</sub> = 0)		80	100	V
V <sub>EBO</sub>	Emitter-Base Voltage (I <sub>C</sub> = 0)		5		V
lc	Collector Current		25		А
I <sub>CM</sub>	Collector Peak Current		50		Α
Ι <sub>Β</sub>	Base Current		:	Α	
P <sub>tot</sub>	Total Dissipation at $T_{case} \le 25$ °C		125		W
T <sub>stg</sub>	Storage Temperature		-65 to 150		°C
Ti	Max. Operating Junction Temperature		1;	°C	

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#### THERMAL DATA

R <sub>thj-case</sub> Thermal Resistance Junction-case	Max	1	°C/W
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### **ELECTRICAL CHARACTERISTICS** ( $T_{case} = 25 \, {}^{\circ}C$ unless otherwise specified)

Symbol	Parameter	Test Conditions		Min.	Тур.	Max.	Unit
Ісво	Collector Cut-off Current ( $I_B = 0$ )	V <sub>CB</sub> = 60 V				1	mA
I <sub>EBO</sub>	Emitter Cut-off Current $(I_C = 0)$	V <sub>EB</sub> = 5 V				1	mA
ICES	Collector Cut-off Current (V <sub>BE</sub> = 0)	$V_{CE}$ = Rated $V_{CEO}$				0.7	mA
$V_{CEO(sus)}^{*}$	Collector-Emitter Sustaining Voltage (I <sub>B</sub> = 0)	I <sub>C</sub> = 30 mA for <b>TIP36B</b> for <b>TIP35C/36C</b>		80 100			V V
h <sub>FE</sub> *	DC Current Gain	I <sub>C</sub> = 1.5 A I <sub>C</sub> = 15 A	$V_{CE} = 4 V$ $V_{CE} = 4 V$	25 10		50	
$V_{CE(sat)}^{*}$	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 15 A I <sub>C</sub> = 25 A	I <sub>B</sub> = 1.5 A I <sub>B</sub> = 5 A			1.8 4	V
$V_{BE(on)}^{*}$	Base-Emitter Voltage	I <sub>C</sub> = 15 A I <sub>C</sub> = 25 A	V <sub>CE</sub> = 4 V V <sub>CE</sub> = 4 V			2 4	V V
f⊤	Transition Frequency	I <sub>C</sub> = 1 A f = 1 MHz	V <sub>CE</sub> = 10 V	3			MHz
h <sub>fe</sub>	Small Signal Current Gain	I <sub>C</sub> = 1 A f = 1 KHz	V <sub>CE</sub> = 10 V	25			

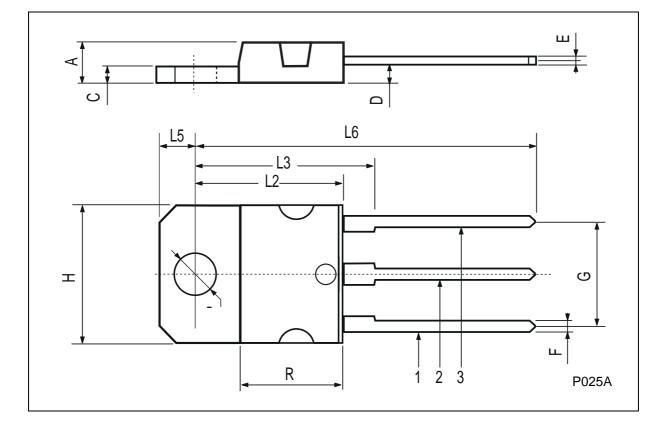
\* Pulsed: Pulse duration =  $300 \,\mu$ s, duty cycle  $\leq 2 \,\%$ 

For PNP types voltage and current values are negative.



DIM.		mm			inch	
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
А	4.7		4.9	0.185		0.193
С	1.17		1.37	0.046		0.054
D		2.5			0.098	
E	0.5		0.78	0.019		0.030
F	1.1		1.3	0.043		0.051
G	10.8		11.1	0.425		0.437
Н	14.7		15.2	0.578		0.598
L2	-		16.2	_		0.637
L3		18			0.708	
L5	3.95		4.15	0.155		0.163
L6		31			1.220	
R	-		12.2	_		0.480
Ø	4		4.1	0.157		0.161







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