

TIP35C TIP36B/TIP36C

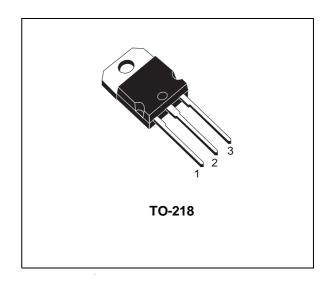
COMPLEMENTARY SILICON HIGH POWER TRANSISTORS

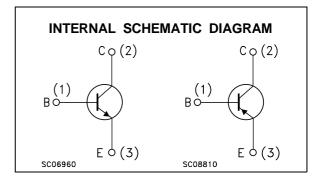
 STMicroelectronic PREFERRED SALESTYPES

DESCRIPTION

The TIP35C is a silicon Epitaxial-Base NPN transistor mounted in TO-218 plastic package. It is intented for use in power amplifier and switching applications.

The complementary PNP type is TIP36C. Also TIP36B is a PNP type.





ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Parameter		Value		
		NPN		TIP35C		
		PNP	TIP36B	TIP36C		
V _{CBO}	Collector-Base Voltage (I _E = 0)		80	100	V	
V _{CEO}	Collector-Emitter Voltage (I _B = 0)		80	100	V	
V _{EBO}	Emitter-Base Voltage (I _C = 0)		5		V	
Ic	Collector Current		25		А	
Ісм	Collector Peak Current		50		Α	
Ι _Β	Base Current		5		Α	
P _{tot}	Total Dissipation at T _{case} ≤ 25 °C		125		W	
T _{stg}	Storage Temperature		-65 to 150		°C	
Tj	Max. Operating Junction Temperature		150		°C	

For PNP types voltage and current values are negative.

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TIP35C / TIP36B / TIP36C

THERMAL DATA

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

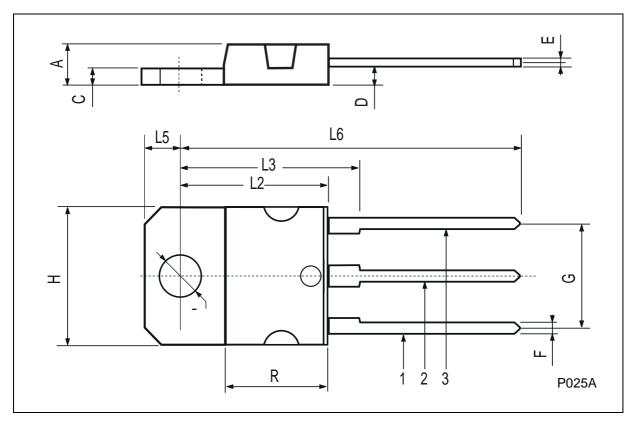
Symbol	Parameter	Test Conditions	Min.	Тур.	Max.	Unit
I _{CEO}	Collector Cut-off Current (I _B = 0)	V _{CE} = 60 V			1	mA
I _{EBO}	Emitter Cut-off Current (I _C = 0)	$V_{EB} = 5 \text{ V}$			1	mA
I _{CES}	Collector Cut-off Current (V _{BE} = 0)	V _{CE} = Rated V _{CEO}			0.7	mA
V _{CEO(sus)} *	Collector-Emitter Sustaining Voltage (I _B = 0)	I _C = 30 mA for TIP36B for TIP35C/36C	80 100			V V
h _{FE} *	DC Current Gain	$I_{C} = 1.5 \text{ A}$ $V_{CE} = 4 \text{ V}$ $V_{CE} = 4 \text{ V}$	25 10		50	
V _{CE(sat)} *	Collector-Emitter Saturation Voltage	$I_{C} = 15 \text{ A}$ $I_{B} = 1.5 \text{ A}$ $I_{B} = 5 \text{ A}$			1.8 4	٧
V _{BE(on)} *	Base-Emitter Voltage	Ic = 15 A			2 4	V
f _T	Transition Frequency	I _C = 1 A V _{CE} = 10 V f = 1 MHz	3			MHz
h _{fe}	Small Signal Current Gain	I _C = 1 A V _{CE} = 10 V f = 1 KHz	25			

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^{*} Pulsed: Pulse duration = 300 μs, duty cycle ≤ 2 % For PNP types voltage and current values are negative.

TO-218 (SOT-93) MECHANICAL DATA

DIM.	mm			inch			
Diwi.	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.	
Α	4.7		4.9	0.185		0.193	
С	1.17		1.37	0.046		0.054	
D		2.5			0.098		
Е	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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