



SILICON HIGH- POWER TRANSISTOR
NPN TIP35A/B/C
25A 125W

Technical Data

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

- ☞ DC Current Gain - $h_{FE} = 15(\text{Min}) @ I_C = 15 \text{ A dc}$
- ☞ 25 A Collector Current
- ☞ TO-218 Package

MAXIMUM RATINGS

Rating	Symbol	TIP35A	TIP35B	TIP35C	Unit
Collector- Emitter Voltage	V_{CEO}	60	80	100	Vdc
Collector – Base Voltage	V_{CB}	60	80	100	Vdc
Emitter Base Voltage	V_{EB}	5			Vdc
Collector Current – Continuous	I_C	25			Adc
Peak		40			
Base Current	I_B	5			Adc
Total Power Dissipation @ TC = 25°C	PD	125			Watts
Derate above 25°C		1			W/°C
Operating and Storage junction Temperature Range	T_j, T_{stg}	-65 to +150			°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max.	Unit
Thermal resistance junction to case	R_{thjc}	1.0	°C/W



ELECTRICAL CHARACTERISTICS : [Tc = 25 °C unless otherwise noted]

Characteristic	Symbol	Min	Typ	Max	Unit
* OFF CHARACTERISTICS :					
Collector–Emitter Sustaining Voltage(1) [Ic =30 mAdc, IB = 0]	V _{CEO(sus)}	60 80 100			Vdc
Collector Cutoff Current [V _{CE} = 30 Vdc, IB = 0]	I _{CEO}			1.0 1.0	mAdc
Collector Cutoff Current [V _{CE} =Rated V _{CEO} , V _{BE} = 0]	I _{CES}			700	⊕Adc
Emitter –Base Cutoff Current [V _{EB} =5.0 Vdc , Ic = 0]	I _{EBO}			1	mAdc
* ON CHARACTERISTICS (1):					
DC Current Gain [Ic = 1.5 Adc , V _{CE} = 4.0 Vdc] [Ic = 15Adc , V _{CE} = 4.0 Vdc]	h _{FE}	25 15		---	
Collector-Emitter Saturation Voltage [Ic = 15Adc , IB = 1.5Adc] [Ic = 25Adc , IB = 5.0Adc]	V _{CE(sat)}			1.8 4.0	Vdc
Base-Emitter on Voltage [Ic =15.0 Adc , V _{CE} = 4V] [Ic =25.0 Adc , V _{CE} = 4.0V]	V _{BE(on)}			2.0 4.0	Vdc
DYNAMIC CHARACTERISTICS :					
Current Gain – Bandwidth Product [Ic=1Adc,V _{CE} =10Vdc,ftest=1.0 MHz]	f _T	3			MHz
Small-Signal Current Gain [IC= 1 Adc, V _{CE} =10 Vdc, f=1kHz]	hfe	25			

- (1) Pulse Test : Pulse Width <300µs , Duty Cycle < 2.0%
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