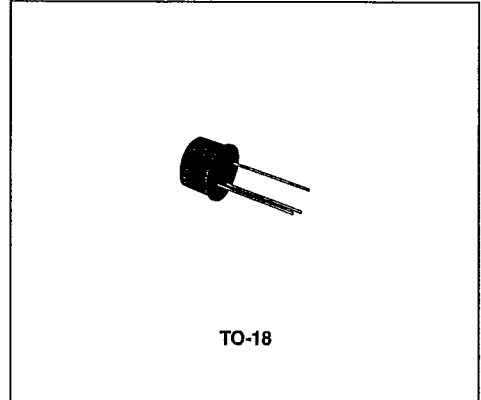
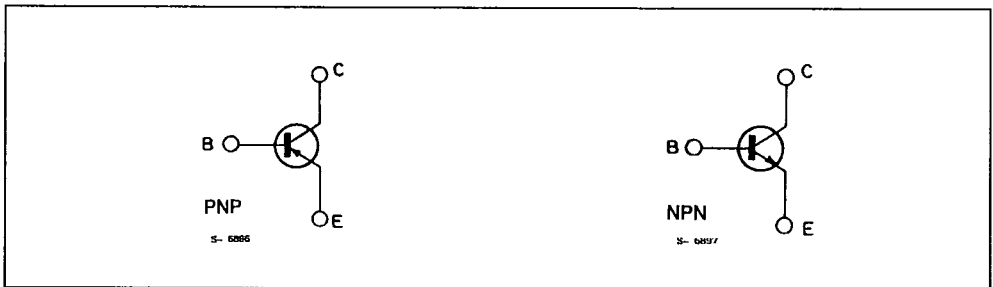


DESCRIPTION

The BC297 and BC298 are silicon planar epitaxial PNP transistors in TO-18 metal case. They are particularly intended for use in high current high gain applications, in driver stages of hi-fi equipments or in output stages of low power class B amplifiers.

The complementary NPN types are the BC377 and BC378, respectively.

**INTERNAL SCHEMATIC DIAGRAM****ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter	Value		Unit
		BC297	BC298	
V_{CES}	Collector-emitter Voltage ($V_{EB} = 0$)	- 50	- 30	V
V_{CEO}	Collector-emitter Voltage ($I_B = 0$)	- 45	- 25	V
V_{EBO}	Emitter-base Voltage ($I_C = 0$)	- 5		V
I_C	Collector Current	- 1		A
I_B	Base Current	- 0.2		A
P_{tot}	Total Power Dissipation at $T_{amb} \leq 25^\circ\text{C}$ at $T_{case} \leq 75^\circ\text{C}$	375	1	mW W
T_{stg}	Storage Temperature	- 65 to 175		$^\circ\text{C}$
T_j	Junction Temperature	175		$^\circ\text{C}$

THERMAL DATA

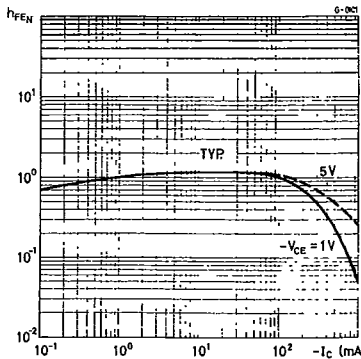
$R_{th\ j-case}$	Thermal Resistance Junction-case	Max	100	°C/W
$R_{th\ j-amb}$	Thermal Resistance Junction-ambient	Max	400	°C/W

ELECTRICAL CHARACTERISTICS ($T_{case} = 25\text{ °C}$ unless otherwise specified)

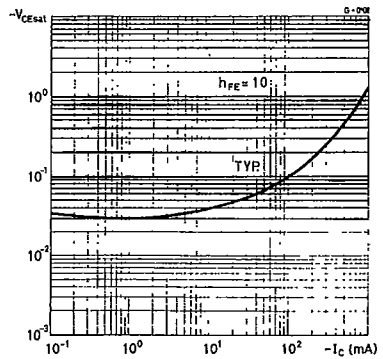
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CES}	Collector Cutoff Current ($V_{BE} = 0$)	For BC297 $V_{CE} = -50\text{ V}$ For BC298 $V_{CE} = -30\text{ V}$			-100 -100	nA nA
$V_{(BR)\ CEO}^*$	Collector-emitter Breakdown Voltage ($I_B = 0$)	$I_C = -10\text{ mA}$ For BC297 For BC298	-45 -25			V V
$V_{(BR)\ EBO}$	Emitter-base Breakdown Voltage ($I_C = 0$)	$I_E = -10\text{ }\mu\text{A}$	-5			V
$V_{CE(sat)}^*$	Collector-emitter Saturation Voltage	$I_C = -500\text{ mA}$ $I_B = -50\text{ mA}$			-0.7	V
V_{BE}^*	Base-emitter Voltage	$I_C = -100\text{ mA}$ $V_{CE} = -1\text{ V}$		-770		mV
$V_{BE(sat)}^*$	Base-emitter Saturation Voltage	$I_C = -500\text{ mA}$ $I_B = -50\text{ mA}$			-1.2	V
h_{FE}^*	DC Current Gain Gr.7	$I_C = -100\text{ mA}$ $V_{CE} = -1\text{ V}$ $I_C = -100\text{ mA}$ $V_{CE} = -1\text{ V}$ $I_C = -300\text{ mA}$ $V_{CE} = -1\text{ V}$	75 100 30		260 260	
f_T	Transition Frequency	$I_C = -50\text{ mA}$ $V_{CE} = -10\text{ V}$		250		MHz
C_{CBO}	Collector-base Capacitance	$I_E = 0$ $V_{CB} = -10\text{ V}$		8		pF
C_{EBO}	Emitter-base Capacitance	$I_C = 0$ $V_{EB} = -0.5\text{ V}$		30		pF

* Pulsed : pulse duration = 300 μs , duty cycle = 1 %.

DC Normalized Current Gain.



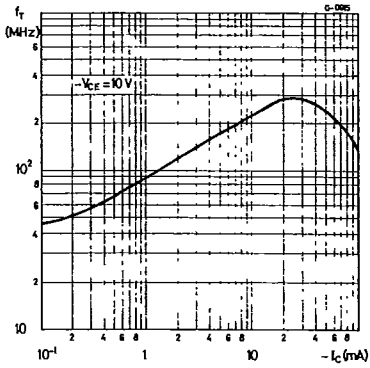
Collector-emitter Saturation Voltage.



SGS-THOMSON

T-29-19

Transition Frequency.



Power Rating Chart.

