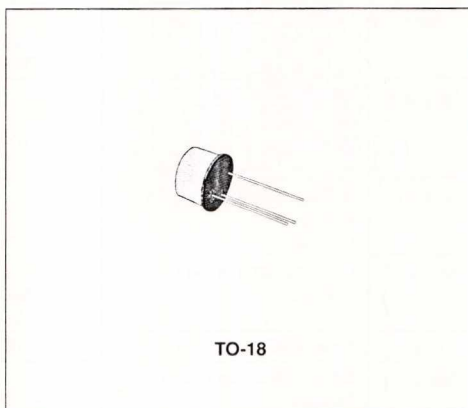


## AUDIO DRIVERS

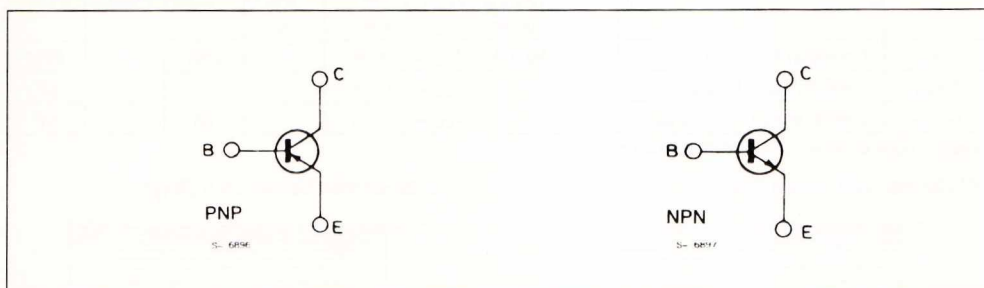
### DESCRIPTION

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**

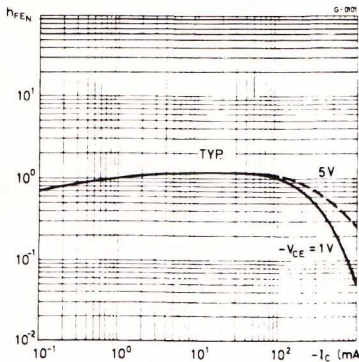
$R_{th\ j-case}$	Thermal Resistance Junction-case	Max	100	°C/W
$R_{th\ j-amb}$	Thermal Resistance Junction-ambient	Max	400	°C/W

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

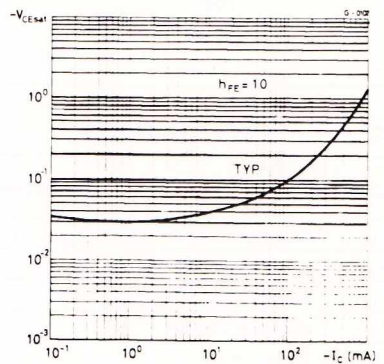
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$I_{CES}$	Collector Cutoff Current ( $V_{BE} = 0$ )	For <b>BC297</b> $V_{CE} = -50\text{ V}$ For <b>BC298</b> $V_{CE} = -30\text{ V}$			-100 -100	nA nA
$V_{(BR)\ CEO}^*$	Collector-emitter Breakdown Voltage ( $I_B = 0$ )	$I_C = -10\text{ mA}$ For <b>BC297</b> For <b>BC298</b>	-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  $\mu\text{s}$ , duty cycle = 1 %.

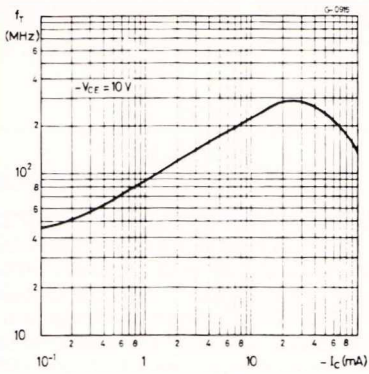
DC Normalized Current Gain.



Collector-emitter Saturation Voltage.



Transition Frequency.



Power Rating Chart.

