

## GERMANIUM ALLOY PNP

### AUDIO POWER AMPLIFIER

The AD 263 is a germanium alloy junction PNP transistor in a SOT-9 metal case. It is designed specifically for series and shunt regulators, driver and output stages and, for use in class A and in class B, audio amplifiers.

The complementary NPN type is the BD 163.

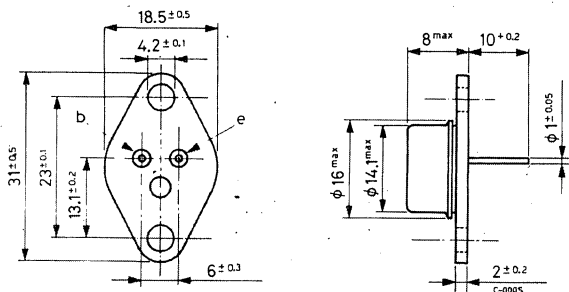
### ABSOLUTE MAXIMUM RATINGS

$V_{CBO}$	Collector-base voltage ( $I_E = 0$ )	-60	V
$V_{CEO (sus)}$	Collector-emitter voltage ( $I_B = 0$ )	-40	V
$V_{EBO}$	Emitter-base voltage ( $I_C = 0$ )	-10	V
$I_C$	Collector current	-4	A
$I_B$	Base current	-2	A
$P_{tot}$	Total power dissipation at $T_{case} \leq 60^\circ C$	10	W
$T_{stg}$	Storage temperature	-65 to 100	$^\circ C$
$T_j$	Junction temperature	100	$^\circ C$

### MECHANICAL DATA

Dimensions in mm

Collector connected to case



SOT-9

# AD 263

## THERMAL DATA

$R_{th\ j-case}$	Thermal resistance junction-case	max	4 °C/W
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## ELECTRICAL CHARACTERISTICS ( $T_{case} = 25\text{ °C}$ unless otherwise specified)

Parameter	Test conditions	Min.	Typ.	Max.	Unit
$I_{CBO}$ Collector cutoff current ( $I_E = 0$ )	$V_{CB} = -60\text{ V}$ $V_{CB} = -0.5\text{ V}$			-5 -0.1	mA mA
$I_{CEO}$ Collector cutoff current ( $I_B = 0$ )	$V_{CE} = -28\text{ V}$			-15	mA
$V_{EBO}$ Emitter-base voltage ( $I_C = 0$ )	$I_{EBO} = -2\text{ mA}$	-10			V
$V_{CEO(sus)*}$ Collector-emitter voltage ( $I_B = 0$ )	$I_C = -0.6\text{ A}$	-40			V
$V_{CE(sat)*}$ Collector-emitter saturation voltage	$I_C = -1.5\text{ A}$ $I_B = -0.15\text{ A}$			-0.2	V
$V_{CEK}^{*(1)}$ Collector-emitter knee voltage	$I_C = -1.5\text{ A}$		-0.3		V
$V_{BE}^*$ Base-emitter voltage	$I_C = -1.5\text{ A}$ $V_{CE} = -2\text{ V}$			-0.9	V
$h_{FE}$ DC current gain	$I_C = -1.5\text{ A}$ $V_{CE} = -2\text{ V}$ $I_C = -0.5\text{ A}$ $V_{CE} = -2\text{ V}$	20		180	— —
$f_T$ Transition frequency	$I_C = -0.2\text{ A}$ $V_{CE} = -2\text{ V}$	200	315		kHz

\* Pulsed; pulse duration = 300  $\mu\text{s}$ , duty factor = 1.5%

(1) Chose the characteristic ( $I_C$ ,  $V_{CE}$ ) passing through the point  $I_C = -1.65\text{ A}$ ,  $V_{CE} = -1\text{ V}$  and read the  $V_{CE}$  value at  $I_C = -1.5\text{ A}$