

PNP Silicon Planar Transistor

BD 430

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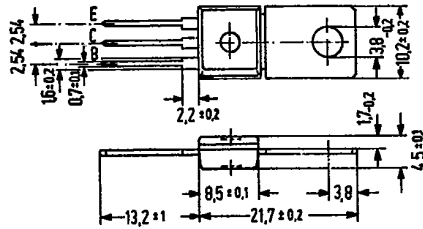
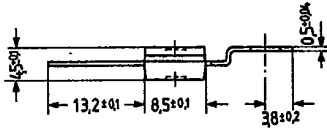
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BD 430 is an epitaxial PNP silicon planar transistor in a plastic package similar to TO 202. Together with its complementary transistor BD 429 it is particularly suitable for use in complementary output stages of medium performance (e.g. car radios).

Type	Ordering code
BD 430	Q62702-D1070



Approx. weight 15 g. Dimensions in mm

Available upon request also with bent fixing plate.

Maximum ratings

Collector-emitter voltage	$-V_{CES}$	32	V
Collector-emitter voltage	$-V_{CEO}$	20	V
Emitter-base voltage	$-V_{EBO}$	5	V
Collector current	$-I_C$	3	A
Emitter current	$-I_E$	3	A
Base current	$-I_B$	1	A
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	-55 to +150	°C
Total power dissipation	$P_{tot}$	10	W
	$P_{tot}$	2	W

Thermal resistance

Junction to ambient air	$R_{thJA}$	≤ 62,5	K/W
Junction to mounting area	$R_{thJC}$	≤ 12,5	K/W

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Static characteristics ( $T_{amb} = 25^{\circ}\text{C}$ )

Collector-emitter saturation voltage ( $-I_C = 2\text{ A}; -I_B = 200\text{ mA}$ )	$-V_{CEsat}$	$\leq 0.5$	V
Collector cutoff current ( $-V_{CB} = 32\text{ V}$ )	$-I_{CBO}$	$\leq 10$	$\mu\text{A}$
Collector cutoff current ( $-V_{CB} = 32\text{ V}; T_j = 150^{\circ}\text{C}$ )	$-I_{CBO}$	$\leq 1$	mA
Emitter cutoff current ( $-V_{EB} = 5\text{ V}$ )	$-I_{EBO}$	$\leq 10$	$\mu\text{A}$
Base-emitter voltage ( $-V_{CB} = 10\text{ V}; -I_C = 5\text{ mA}$ )	$-V_{BE}$	0.6	V
( $-V_{CB} = 1\text{ V}; -I_C = 2\text{ A}$ )	$-V_{BE}$	$\leq 1.2$	V
DC current gain			
$-V_{CE} = 10\text{ V}; I_C = 5\text{ mA}$	$h_{FE}$	$> 50$	-
$-V_{CE} = 1\text{ V}; I_C = 0.5\text{ A}$	$h_{FE}$	85 to 375	-
$-V_{CE} = 1\text{ V}; I_C = 2\text{ A}$	$h_{FE}$	$> 40$	-

Dynamic characteristics ( $T_{amb} = 25^{\circ}\text{C}$ )

Transition frequency ( $-V_{CE} = 5\text{ V}; -I_C = 50\text{ mA}$ )	$f_T$	100	MHz
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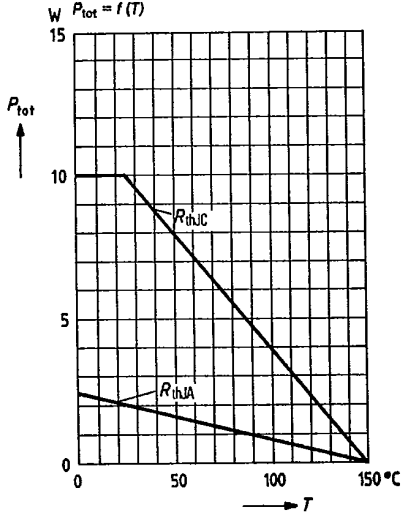
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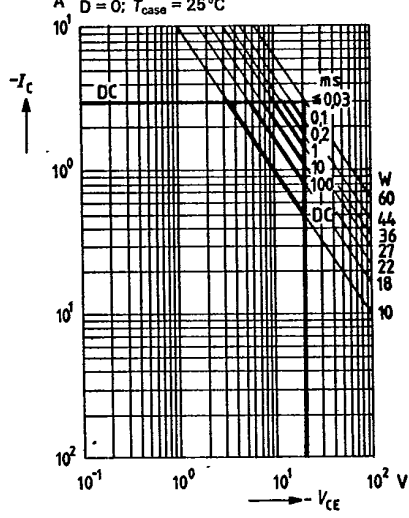
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Total perm. power dissipation versus temperature  
 $P_{tot} = f(T)$

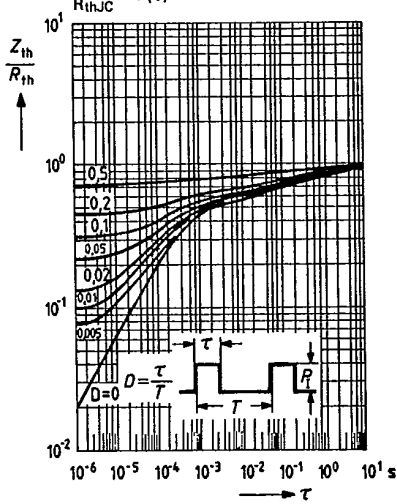


Permissible operating range  $I_C = f(V_{CE})$   
 $D = 0; T_{case} = 25^\circ C$

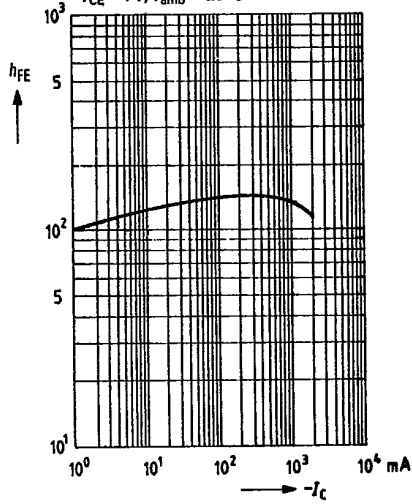


Permissible pulse load

$Z_{thJC} = f(\tau)$   
 $R_{thJC}$



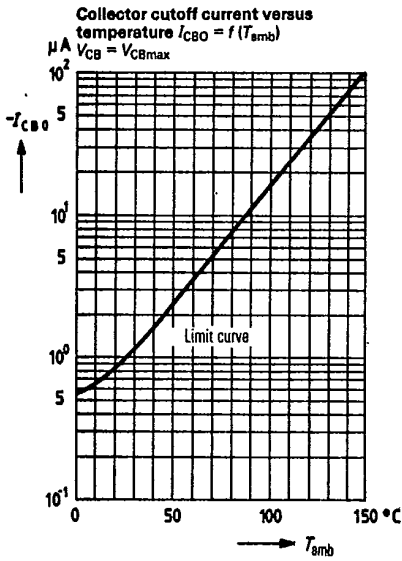
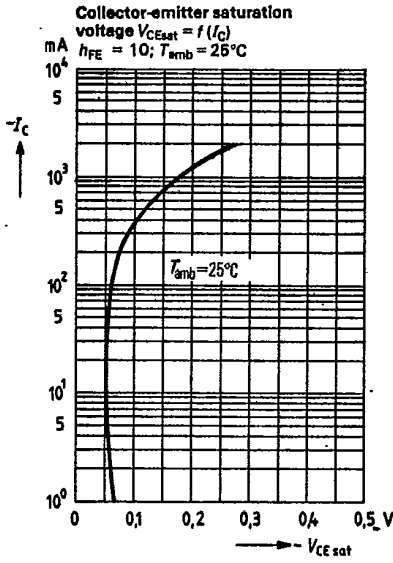
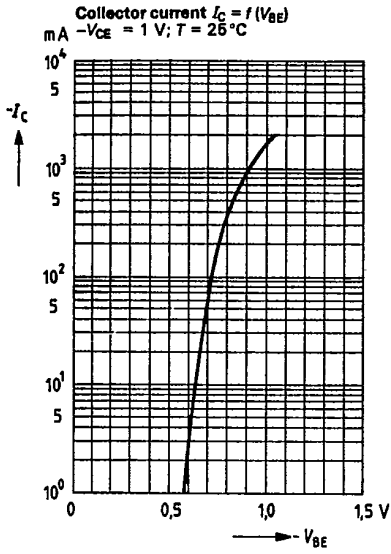
DC current gain  $h_{FE} = f(I_C)$   
 $-V_{CE} = 1 V, T_{amb} = 25^\circ C$



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