

25C D ■ 8235605 0004352 T ■ SIEG

NPN Silicon Planar Transistor

BD 424

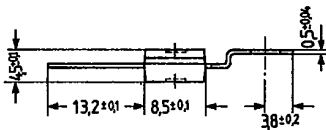
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SIEMENS AKTIENGESELLSCHAFT 25C 04352

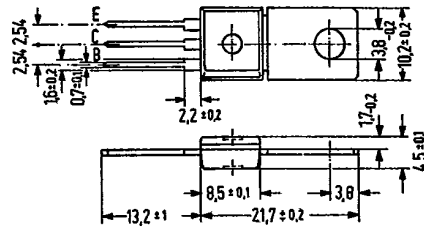
D

BD 424 is an epitaxial NPN silicon planar transistor in a plastic package similar to TO 202. It is particularly intended for use as driver transistor in horizontal deflection stages of TV sets as well as for universal applications at higher reverse voltages.

Type	Ordering code
BD 424	Q62702-D1068



Available upon request also with bent down fixing plate.



Approx. weight 15 g Dimensions in mm

Maximum ratings ($T_U = 25^\circ\text{C}$)

Collector-emitter voltage
Collector-emitter voltage
Emitter-base voltage
Collector current
Collector peak current
Base current
Junction temperature
Storage temperature range
Total power dissipation ($T_{\text{case}} \leq 100^\circ\text{C}$)

V_{CEO}	100	V
V_{CES}	160	V
V_{EBO}	5	V
I_{C}	0.8	A
I_{CM}	1	A
I_{B}	100	mA
T_{J}	150	$^\circ\text{C}$
T_{stg}	-55 to +125	$^\circ\text{C}$
P_{tot}	2.5	W

Thermal resistance

Junction to ambient air
Junction to case

R_{thJA}	<70	K/W
R_{thJC}	<20	K/W

398

1 775

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

Collector cutoff current

($V_{CB} = 140\text{ V}$)

I_{CBO}	<100	nA
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Collector cutoff current

($V_{CB} = 140\text{ V}$; $T_{amb} = 125^{\circ}\text{C}$)

I_{CBO}	<10	μA
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Emitter cutoff current

($V_{EB} = 5\text{ V}$)

I_{EBO}	<10	μA
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Collector-emitter breakdown voltage

($I_C = 50\text{ mA}$)

$V_{(BR)CEO}$	>100	V
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Collector-emitter breakdown voltage

($I_C = 100\text{ }\mu\text{A}$)

$V_{(BR)CES}$	>160	V
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Emitter-base breakdown voltage

($I_E = 1\text{ }\mu\text{A}$)

$V_{(BR)EBO}$	>5	V
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DC current gain

($I_C = 100\text{ mA}$; $V_{CE} = 1\text{ V}$)

h_{FE}	>40	-
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($I_C = 200\text{ mA}$; $V_{CE} = 1\text{ V}$)

h_{FE}	>20	-
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Base-emitter forward voltage

($I_C = 200\text{ mA}$; $V_{CE} = 1\text{ V}$)

V_{BE}	<1.3	V
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Collector-emitter saturation voltage

($I_C = 300\text{ mA}$; $I_B = 30\text{ mA}$)

V_{CEsat}	<1	V
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Base-emitter saturation voltage

($I_C = 300\text{ mA}$; $I_B = 30\text{ mA}$)

V_{BEsat}	<1.4	V
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Dynamic characteristics ($T_{amb} = 25^{\circ}\text{C}$)

Transition frequency

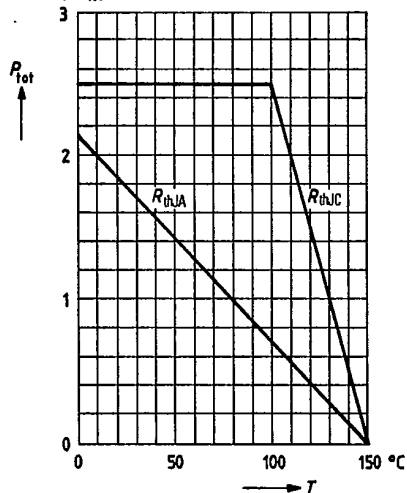
($I_C = 10\text{ mA}$; $V_{CE} = 5\text{ V}$; $f = 20\text{ MHz}$)

f_T	100	MHz
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Total perm. power dissipation

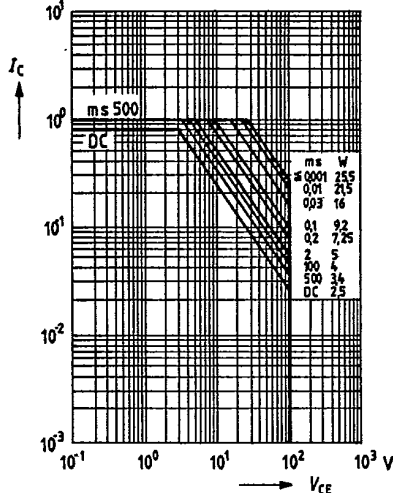
versus temperature

$$P_{\text{tot}} = f(T)$$



Permissible operating range

$$I_C = f(V_{CE}); T_{\text{case}} \leq 100^\circ\text{C}$$



Permissible pulse load

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

