

**NPN Silicon Planar Transistor**

**BD 524**

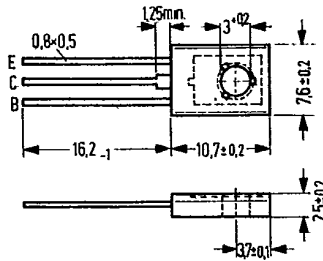
SIEMENS AKTIENGESELLSCHAFT 04377

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BD 524 is an epitaxial NPN silicon planar transistor in TO 126 plastic package (12 A 3 DIN 41869, sheet 4). 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 524	Q62702-D905
Spring washer	
A3 DIN 137	Q62902-B63
Mica washer	Q62902-B62



Approx. weight 0.5 g. Dimensions in mm  
 Transistor fixing with M 3 screw  
 Starting torque < 0.8 Nm  
 Washer or spring washer should be used

**Maximum ratings ( $T_{amb} = 25^{\circ}\text{C}$ )**

Collector-emitter voltage	$V_{CEO}$	100	V
Collector-emitter voltage	$V_{CES}$	160	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	0.8	A
Collector peak current	$I_{CM}$	1	A
Base current	$I_B$	100	mA
Junction temperature	$T_j$	150	$^{\circ}\text{C}$
Storage temperature range	$T_{stg}$	-55 to + 125	$^{\circ}\text{C}$
Total power dissipation ( $T_{case} \leq 25^{\circ}\text{C}$ )	$P_{tot}$	5	W

**Thermal resistance**

Junction to ambient air	$R_{thJA}$	< 110	K/W
Junction to case	$R_{thJC}$	< 25	K/W

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

Collector cutoff current ( $V_{CB} = 140\text{ V}$ )	$I_{CBO}$	<100	nA
Collector cutoff current ( $V_{CB} = 140\text{ V}; T_{amb} = 125^{\circ}\text{C}$ )	$I_{CBO}$	<10	$\mu\text{A}$
Emitter cutoff current ( $V_{EB} = 5\text{ V}$ )	$I_{EBO}$	<10	$\mu\text{A}$
Collector-emitter breakdown voltage ( $I_C = 50\text{ mA}$ )	$V_{(BR)CEO}$	>100	V
Collector-emitter breakdown voltage ( $I_C = 100\text{ }\mu\text{A}$ )	$V_{(BR)CES}$	>160	V
Emitter-base breakdown voltage ( $I_E = 1\text{ }\mu\text{A}$ )	$V_{(BR)EBO}$	>5	V
DC current gain ( $I_C = 100\text{ mA}; V_{CE} = 1\text{ V}$ )	$h_{FE}$	>40	-
( $I_C = 200\text{ mA}; V_{CE} = 1\text{ V}$ )	$h_{FE}$	>20	-
Base-emitter forward voltage ( $I_C = 200\text{ mA}; V_{CE} = 1\text{ V}$ )	$V_{BE}$	<1.3	V
Collector-emitter saturation voltage ( $I_C = 300\text{ mA}; I_B = 30\text{ mA}$ )	$V_{CEsat}$	<1	V
Base-emitter saturation voltage ( $I_C = 300\text{ mA}; I_B = 30\text{ mA}$ )	$V_{BEsat}$	<1.4	V

**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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