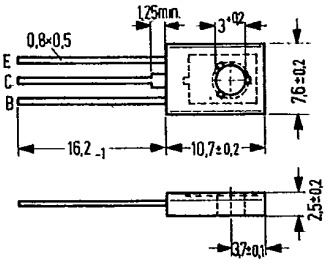
NPN Silicon Planar Transistor

BD 524

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 °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	°C
Storage temperature range	T_{stg}	−55 to + 125	°C
Total power dissipation ($T_{case} \leq 25$ °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 °C)

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

Dynamic characteristics (T_{amb} = 25 °C)

Transition frequency (I_C = 10 mA; V_{CE} = 5 V; f = 20 MHz)	f_T	100	MHz