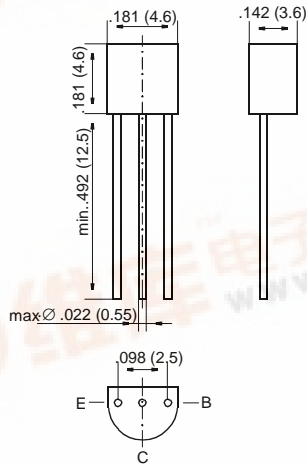


BF421, BF423

Small Signal Transistors (PNP)

TO-92



Dimensions in inches and (millimeters)

FEATURES

- ◆ PNP Silicon Epitaxial Transistors especially suited for application in class-B video output stages of TV receivers and monitors.
- ◆ As complementary types, the NPN transistors BF420 and BF422 are recommended.



MECHANICAL DATA

Case: TO-92 Plastic Package

Weight: approx. 0.18 g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

		Symbol	Value	Unit
Collector-Base Voltage	BF421	$-V_{CBO}$	300	V
	BF423	$-V_{CBO}$	250	V
Collector-Emitter Voltage	BF423	$-V_{CEO}$	250	V
Collector-Emitter Voltage	BF421	$-V_{CER}$	300	V
Emitter-Base Voltage		$-V_{EBO}$	5	V
Collector Current		$-I_C$	50	mA
Peak Collector Current		$-I_{CM}$	100	mA
Power Dissipation at $T_{amb} = 25\text{ °C}$		P_{tot}	830 ¹⁾	mW
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_S	-65 to +150	°C

¹⁾ Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case.

BF421, BF423

ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage at $-I_C = 100 \mu A$, $I_E = 0$ BF421 BF423	$-V_{(BR)CBO}$ $-V_{(BR)CBO}$	300 250	— —	— —	V V
Collector-Emitter Breakdown Voltage BF423 at $-I_C = 10 \text{ mA}$, $I_B = 0$	$-V_{(BR)CEO}$	250	—	—	V
Collector-Emitter Breakdown Voltage BF421 at $R_{BE} = 2.7 \text{ k}\Omega$, at $-I_C = 10 \text{ mA}$	$-V_{(BR)CER}$	300	—	—	V
Emitter-Base Breakdown Voltage at $-I_E = 100 \mu A$, $I_C = 0$	$-V_{(BR)EBO}$	5	—	—	V
Collector-Base Cutoff Current at $-V_{CB} = 200 \text{ V}$, $I_E = 0$	$-I_{CBO}$	—	—	10	nA
Collector-Emitter Cutoff Current at $R_{BE} = 2.7 \text{ k}\Omega$, $-V_{CE} = 250 \text{ V}$ at $R_{BE} = 2.7 \text{ k}\Omega$, $-V_{CE} = 200 \text{ V}$, $T_j = 150 \text{ }^\circ\text{C}$	$-I_{CER}$ $-I_{CER}$			50 10	nA μA
Collector Saturation Voltage at $-I_C = 30 \text{ mA}$, $-I_B = 5 \text{ mA}$	$-V_{CEsat}$	—	—	0.8	V
DC Current Gain at $-V_{CE} = 20 \text{ V}$, $-I_C = 25 \text{ mA}$	h_{FE}	50	—	—	—
Gain-Bandwidth Product at $-V_{CE} = 10 \text{ V}$, $-I_C = 10 \text{ mA}$	f_T	60	—	—	MHz
Feedback Capacitance at $-V_{CE} = 30 \text{ V}$, $-I_C = 0$, $f = 1 \text{ MHz}$	C_{re}	—	—	1.6	pF
Thermal Resistance Junction to Ambient Air	R_{thJA}	—	—	150 ¹⁾	K/W

¹⁾ Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case.