

LED Assortment 3 mm / 5 mm incl. Holder



300 pcs. Set (T230125)



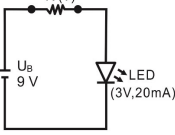
600 pcs. Set (T230126)

U_B = Source voltage (Volt)
 I_F = Forward current (Ampere)

U_F = Forward voltage (Volt)
 R = Resistor Value (Ohm)

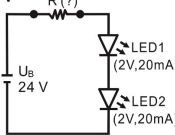
Example 1

$U_B = 9\text{ V}$
LED = U_F typ. 3 V, I_F max. 20 mA
 $U_R = U_B - U_F = 6\text{ V}$
 $R = \frac{U_R}{I_F}$
 $R = \frac{6\text{ V}}{0.02\text{ A}}$
 $R = 300\Omega$



Example 2

$U_B = 24\text{ V}$
LED1 = U_F typ. 2 V, I_F max. 20 mA
LED2 = U_F typ. 2 V, I_F max. 20 mA
 $U_R = U_B - (U_{F1} + U_{F2}) = 20\text{ V}$
 $R = \frac{U_R}{I_F}$
 $R = \frac{20\text{ V}}{0.02\text{ A}}$
 $R = 1000\Omega$



Attention: Please use the next bigger available resistor-value as pre-resistor. The max. power rating of the resistor should not be overdriven. Operation only within the operating parameters of the components.

This round LED assortments are perfect for standard applications and experiments with semiconductor light. Please note that LEDs always need to be driven with current-limitation (pre-resistor, selection see left or constant-current-source) to avoid any damages of the component. Anode = positive / Cathode = negative voltage.

Technical Data: Operating-Temp.: -25 ... +85 °C • Lead soldering temp. max. 270 °C (5 s, one time only) • Storage-Temp.: -30 ... +100 °C • Reverse voltage: max. 5 V • Reverse current: max. 1.0 μA (@ $U_R = 5\text{ V}$) Lifetime within the operating parameters: min. 50,000 h • Package type: diffused & clear.

Details for 300 pcs. Assortment (Part-No.: T230125)

LED- ϕ	Color	Luminous int. I_v (max.)	Viewing angle	Package-type	Wavelength/Color-Temp. (typ.)	Forward voltage U_F (typ.)	Forward current I_F (max.)	Content
3 mm	Red	700 mcd	30 °	Diffus Red	625 nm	2 V	20 mA	25 pcs.
3 mm	Green	2500 mcd	30 °	Diffus Green	520 nm	3 V	20 mA	25 pcs.
3 mm	Yellow	700 mcd	30 °	Diffus Yellow	590 nm	2 V	20 mA	25 pcs.
3 mm	Blue	1300 mcd	30 °	Diffus Blue	460 nm	3 V	20 mA	25 pcs.
3 mm	White	8000 mcd	25 °	Clear	8000 K	3 V	20 mA	25 pcs.
5 mm	Red	700 mcd	30 °	Diffus Red	625 nm	2 V	20 mA	25 pcs.
5 mm	Green	2500 mcd	30 °	Diffus Green	520 nm	3 V	20 mA	25 pcs.
5 mm	Yellow	700 mcd	30 °	Diffus Yellow	590 nm	2 V	20 mA	25 pcs.
5 mm	Blue	1300 mcd	30 °	Diffus Blue	460 nm	3 V	20 mA	25 pcs.
5 mm	White	15000 mcd	25 °	Clear	8000 K	3 V	20 mA	25 pcs.

LED- ϕ	Description	Content
3 mm	LED-holder for round LEDs 3 mm	25 pcs.
5 mm	LED-holder for round LEDs 5 mm	25 pcs.

Details for 600 pcs. Assortment (Part-No.: T230126)

LED- ϕ	Color	Luminous int. I_v (max.)	Viewing angle	Package-type	Wavelength/Color-Temp. (typ.)	Forward voltage U_F (typ.)	Forward current I_F (max.)	Content
3 mm	Red	700 mcd	30 °	Diffus Red	625 nm	2 V	20 mA	50 pcs.
3 mm	Green	2500 mcd	30 °	Diffus Green	520 nm	3 V	20 mA	50 pcs.
3 mm	Yellow	700 mcd	30 °	Diffus Yellow	590 nm	2 V	20 mA	50 pcs.
3 mm	Blue	1300 mcd	30 °	Diffus Blue	460 nm	3 V	20 mA	50 pcs.
3 mm	White	8000 mcd	25 °	Clear	8000 K	3 V	20 mA	50 pcs.
5 mm	Red	700 mcd	30 °	Diffus Red	625 nm	2 V	20 mA	50 pcs.
5 mm	Green	2500 mcd	30 °	Diffus Green	520 nm	3 V	20 mA	50 pcs.
5 mm	Yellow	700 mcd	30 °	Diffus Yellow	590 nm	2 V	20 mA	50 pcs.
5 mm	Blue	1300 mcd	30 °	Diffus Blue	460 nm	3 V	20 mA	50 pcs.
5 mm	White	15000 mcd	25 °	Clear	8000 K	3 V	20 mA	50 pcs.

LED- ϕ	Description	Content
3 mm	LED-holder for round LEDs 3 mm	50 pcs.
5 mm	LED-holder for round LEDs 5 mm	50 pcs.

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