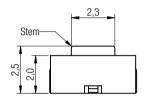
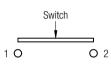


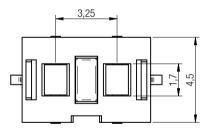
6,8 1,2 1,2

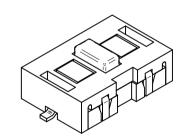


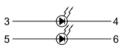
Pattern Dimensions



Circuit Diagram







LED SCHEMATIC

SPECIFICATION

>Rating: 50mA, 12VDC

TECHNICAL CHARACTERISTICS

>Contact Resistance:

Initial: 100mOHM max.
After Life Test: 100mOHM max.

Insulation Resistance: min. 100MOHM at 500VDC

Dielectric Strength: 250VAC for 1 minute

Stroke: 0.25 +0.2/-0.1 mm

MATERIAL

>Cover: LCP UL 94V-0 >Actuator: LCP UL 94V-0

>Frame: LCP UL 94V-0, color white
>Contact: Stainless Steel with Ag
>Terminal: Brass with Ag

>Tape: Polyimide

SOLDERING INFORMATION

>Terminal in SMD version

>According to JEDEC J-STD 020 Hot Air, 2 times max.

>Hand soldering under 350°C for 3 sec. max

ENVIRONMENTAL

>Storage condition: -40°C ~ +85°C, 60% RH max.

>Operation condition: -40°C ~ +85°C

>MLS Level: 3

>Compliance: ROHS, Reach

HANDLING ADVISE

>ESD prevention methods need to be applicated for manual handling and processing by machinery

>Resistors for protection are obligator

PACKAGING INFORMATION

>Reel in ESD bag

| PN | Force | Color of LED | Life cycle |
|------------------|----------------|-----------------------------|------------|
| | - | | |
| 44 4RD2 1025 816 | 160g +75/-30gf | Red / Red | 50.000 |
| 44 4VD2 1025 816 | 160g +75/-30gf | Bright green / Bright green | 50.000 |
| 44 4BD2 1025 816 | 160g +75/-30gf | Blue / Blue | 50.000 |
| 44 4YD2 1025 816 | 160g +75/-30gf | Yellow / Yellow | 50.000 |

Scale - 5:1

This electronic component is designed and developed with the intention for use in general electronics equipments.

Before incorporating the components into any equipments in the field such as aerospace, aviation, nuclear control, submarine, transportation, (automotive control, train control, ship control), transportation signal, disaster prevention, medical, public information network etc. where higher safety and reliability are especially required or if there is possibility of direct damage or injury to human body, Wurth Elektronik must be asked for a written approval.

In addition, even electronic component in general electronic equipments, when used in electrical circuits that require high safety, reliability functions or performance, the sufficient reliability evaluation-check for the safety must be performed before by the user before usage.

| | | | | | | | | | 0 | | | |
|----|------------|------------------|-------------------|----------|----------|--------------------------------|-----------|--------------|--------------------|------------------------|------------------------|------|
| | Projection | | GENERAL TOLERANCE | | | Basic material | | | | | | |
| CS | | WÜRTH ELEKTRONIK | | - | | .x = +/- 0.2 .xx = +/- 0.15 | | | | | | |
| | | | | | | Date | Name | DESCRIPTION | | | | |
| | | | | | Drawn | 12-10-09 | Jelisarow | SwTact | | | | |
| | | | | | Checked | | | WS-TLS 6.8*4 | .5mm Tact Switch w | rith integrated LED, S | MD version | |
| | | | | | | | | | , | | | |
| | | | | | WE eiCan | Würth Elektr | onik | Scale | 5:1 | Position | | SIZE |
| | | | | | CAD | eiCan | | Drawing No. | 444xx21025816 | | | A4 |
| | REV | FILE | DATE | BY | EDV NO | 444x2102581 | 6.dft | | | | System :Solid Edge ST4 | |
| | | | • | | | • | • | • | • | • | | |

| | Emitting colo | r | Yellow | Red | bright green | green | Blue |
|------|--------------------------|----------|-------------|-------------|--------------|-------------|-------------|
| | Order code | | YS | RS | VS | GS | BS |
| item | | unit | | | | | |
| 1 | Peak wavelength typ. | nm | 590 | 650 | 574 | 520 | 468 |
| | Dominant Wave length | | | | | | |
| | @IF=20mA | | | | | | |
| 2 | | typ.nm | 590 | 630 | 567 | 525 | 470 |
| | spectral Line Half-width | | | | | | |
| 3 | @IF=20mA | typ.nm | 20 | 28 | 20 | 35 | 21 |
| | Capacitance | | | | | | |
| 4 | VF=0V;f=1MHZ | typ.pF | 20 | 35 | 15 | 100 | 100 |
| | Forward voltage | typ. V | 2 | 1,95 | 2,1 | 3,2 | 3,2 |
| 5 | @IF=20mA | max.V | 2,5 | 2,5 | 2,5 | 4 | 4 |
| | Reverse current | | | | | | |
| 6 | @VR=5V | uA | 10 | 10 | 10 | 10 | 10 |
| 7 | ESD | V | 2000 | 2000 | 2000 | 1000 | 1000 |
| 8 | Viewing Angle | | | | | | |
| | @20mA 2θ 50% typ | ō | 145 | 145 | 145 | 145 | 145 |
| | Luminous intensity | min. mcd | 80 | | | | |
| 9 | @IF=20mA | typ. mcd | 180 | | | | |
| 10 | Material | | AlGalnP | AlGalnP | AlGalnP | InGaN | InGaN |
| 11 | lens type | | water clear | water clear | water clear | water clear | water clear |

Absolute Maximun Ratings (Ambient Temperature 25C)

| Properties | Blue & green | Red | yellow | bright green | Unit |
|----------------------------|--------------|------|--------|--------------|------|
| Power Dissipation | 120 | 75 | 75 | 75 | mW |
| Peak Forward current | 100 | 185 | 175 | 150 | mA |
| continuous Forward current | 30 | 30 | 30 | 30 | mA |
| Reverse voltage | 5 | 5 | 5 | 5 | V |
| ESD Threshold / HBM | 1000 | 2000 | 2000 | 2000 | V |

HANDLING ADVISE

- 1) The solder profile has to be complied with according to the technical reflow /or wave soldering specification, otherwise no warranty will be sustained
- 2) All products are supposed to be used before the end of the period of 12 months based on the product date-code, if not 100% solderability can't be warranted
- 3) Violation of the technical product specifications such as exceeding the absolute maximum ratings will be result in the loss of warranty
- 4) It's also recommended to return the products into the original packaging
- 5) ESD prevention methods need to be applicated for manual handling and processing by machinery
- 6) Resistors for protection are obligatory

This electronic component is designed and developed with the intention for use in general electronics equipments.

Before incorporating the components into any equipments in the field such as aerospace, aviation, nuclear control, submarine, transportation, (automotive control, train control, ship control), transportation signal, disaster prevention, medical, public information network etc. where higher safety and reliability are especially required or if there is possibility of direct damage or injury to human body, Wurth Elektronik must be asked for a written approval.

In addition, even electronic component in general electronic equipments, when used in electrical circuits that require high safety, reliability functions or performance, the sufficient reliability evaluation-check for the safety must be performed before by the user before usage.

| | WÜRTH ELEKTRONIK | Projection | | GENERAL TOLERANCE .X = +/- 0,2 .XX = +/- 0,15 | | | Basic material | | | | |
|-----|------------------|------------|----|---|----------|-----------|---|--|--|--|--|
| | | | | Date Name | | Name | DESCRIPTION | | | | |
| | | | | Drawn | 12-10-09 | Jelisarow | SwTact | | | | |
| | | | | Checked | | | WS-TLS 6,8*4,5mm Tact Switch with integrated LED, SMD version | | | | |
| | | | | | | | | | | | |
| | | | | WE eiCan CAD eiCan | | onik | Scale 5:1 Position SIZE | | | | |
| | | | | | | | Drawing No. 444xx21025816 A4 | | | | |
| REV | FILE | DATE | BY | EDV NO 444x21025816.dft | | | System Solid Edge ST4 | | | | |