



**WBFBP-02E Plastic-Encapsulate Diodes**

**DS521-30EAA02** SCHOTTKY BARRIER DIODE

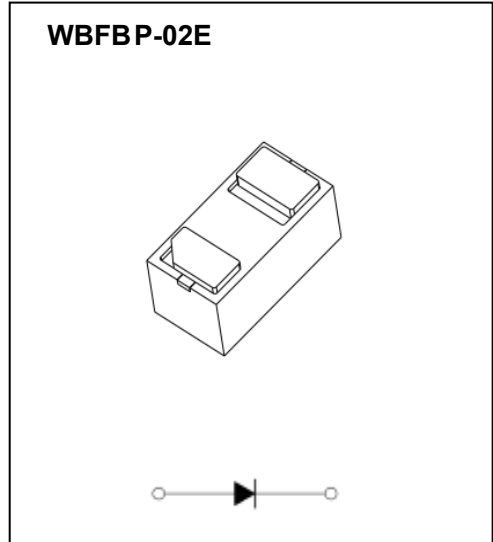
**FEATURE**

- Small surface mounting type
- Low reverse current and low forward voltage
- High reliability

**APPLICATION**

- High speed switching for detection
- For portable equipment:(i.e. Mobile phone,MP3, MD,CD-ROM, DVD-ROM, Note book PC, etc.)

**MARKING**



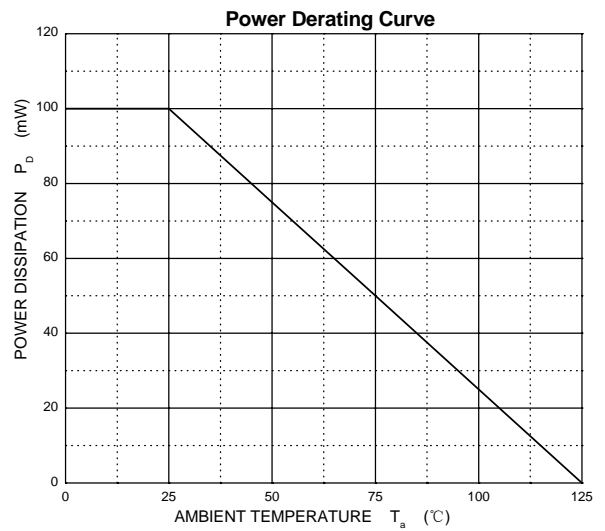
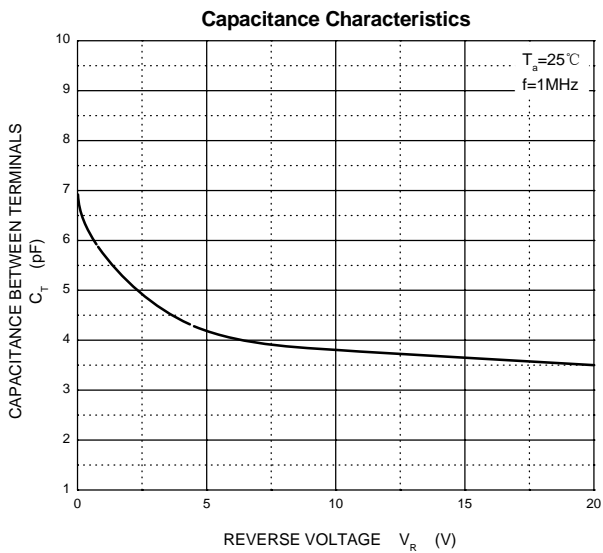
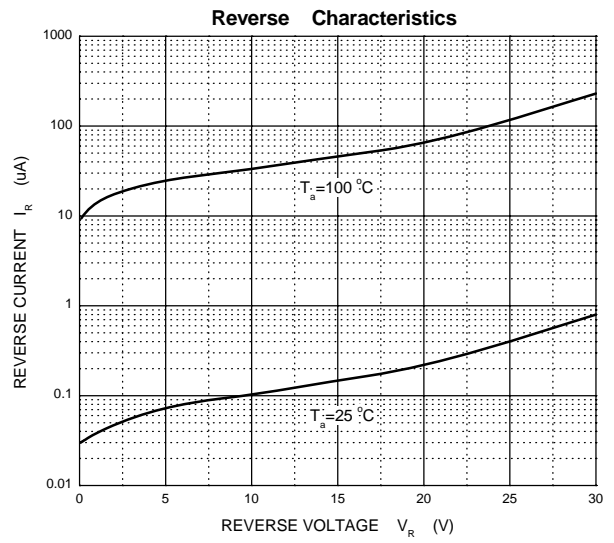
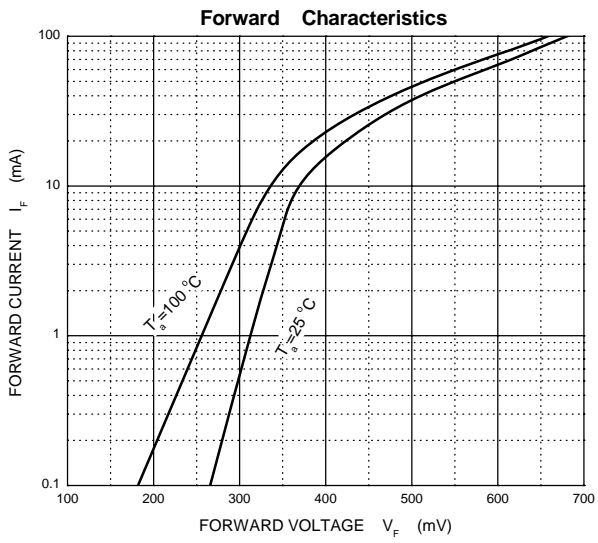
**MAXIMUM RATINGS** ( $T_a=25^{\circ}\text{C}$  unless otherwise noted)

| Symbol          | Parameter  | Limit      | Unit                        |
|-----------------|--|------------|-----------------------------|
| $V_{RRM}$       | Repetitive Peak Reverse Voltage                    | 30         | V                           |
| $V_{RWM}$       | Working Peak Reverse Voltage                       |            |                             |
| $V_{R(RMS)}$    | RMS Reverse Voltage                                | 21         | V                           |
| $I_O$           | Average Rectified Output Current                   | 100        | mA                          |
| $I_{FSM}$       | Non-Repetitive Peak Forward Surge Current@ t=8.3ms | 0.5        | A                           |
| $P_d$           | Power Dissipation                                  | 100        | mW                          |
| $R_{\theta JA}$ | Thermal Resistance from Junction to Ambient        | 1000       | $^{\circ}\text{C}/\text{W}$ |
| $T_J$           | Junction temperature                               | 125        | $^{\circ}\text{C}$          |
| $T_{stg}$       | Storage Temperature                                | -55 ~ +150 | $^{\circ}\text{C}$          |

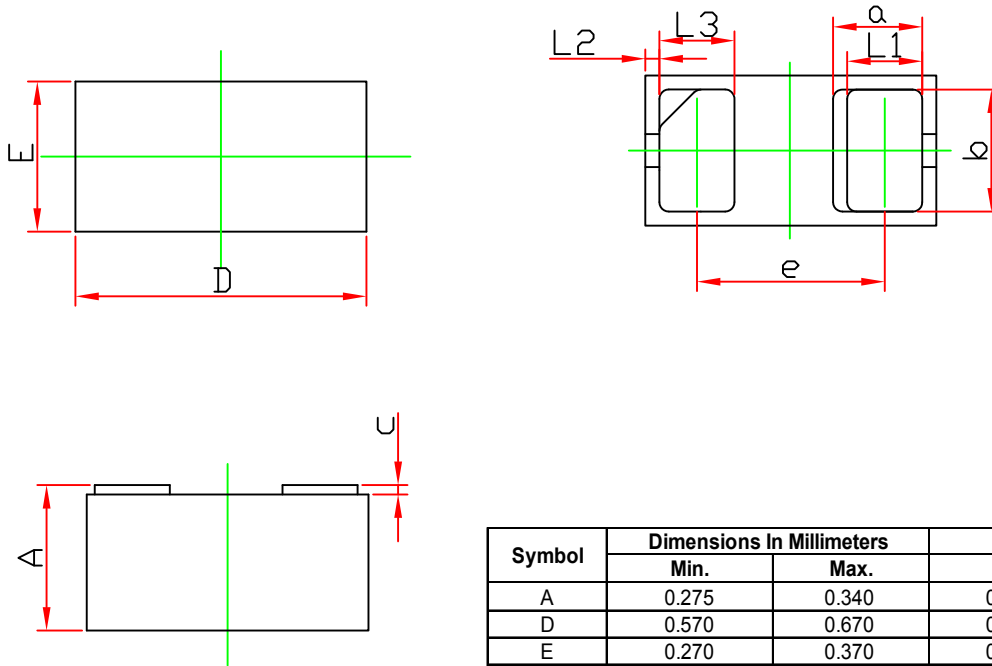
**ELECTRICAL CHARACTERISTICS** ( $T_a = 25^{\circ}\text{C}$  unless otherwise specified)

| Parameter                 | Symbol     | Test Condition      | Min | Typ | Max  | Unit          |
|---------------------------|------------|---------------------|-----|-----|------|---------------|
| Reverse breakdown voltage | $V_{(BR)}$ | $I_R=50\mu\text{A}$ | 30  |     |      | V             |
| Reverse current           | $I_R$      | $V_R=10\text{V}$    |     |     | 10   | $\mu\text{A}$ |
|                           |            | $V_R=30\text{V}$    |     |     | 50   | $\mu\text{A}$ |
| Forward voltage           | $V_F$      | $I_F=10\text{mA}$   |     |     | 0.38 | V             |
|                           |            | $I_F=100\text{mA}$  |     |     | 0.80 | V             |

# Typical Characteristics

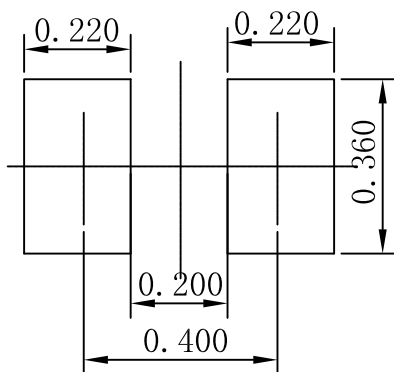


## WBFBP-02E(0.62X0.32X0.31) Package Outline Dimensions



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min.                      | Max.  | Min.                 | Max.  |
| A      | 0.275                     | 0.340 | 0.011                | 0.013 |
| D      | 0.570                     | 0.670 | 0.022                | 0.026 |
| E      | 0.270                     | 0.370 | 0.011                | 0.015 |
| a      | 0.190 REF.                |       | 0.007 REF.           |       |
| b      | 0.225                     | 0.295 | 0.009                | 0.012 |
| c      | 0.010                     | 0.090 | 0.000                | 0.004 |
| e      | 0.365                     | 0.435 | 0.014                | 0.017 |
| L1     | 0.125                     | 0.195 | 0.005                | 0.008 |
| L2     | 0.030 REF.                |       | 0.001 REF.           |       |
| L3     | 0.125                     | 0.195 | 0.005                | 0.008 |

## WBFBP-02E(0.62X0.32X0.31) Suggested Pad Layout



### Note:

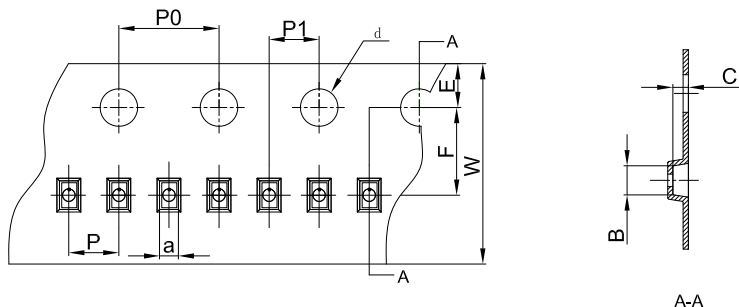
1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.050$  mm.
3. The pad layout is for reference purposes only.

### NOTICE

JCET reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JCET does not assume any liability arising out of the application or use of any product described herein.

# WBFBP-02E(0.62X0.32X0.31) Tape and Reel

## WBFBP-02E(0.62X0.32X0.31) Embossed Carrier Tape



### Packaging Description:

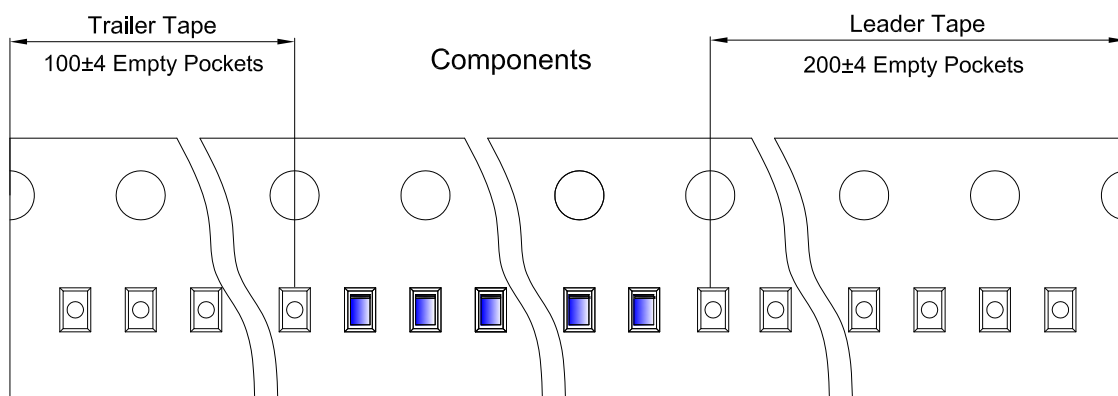
WBFBP-02E parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 10,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Note: If it is the product of the same polarity, the cathode line should be removed.

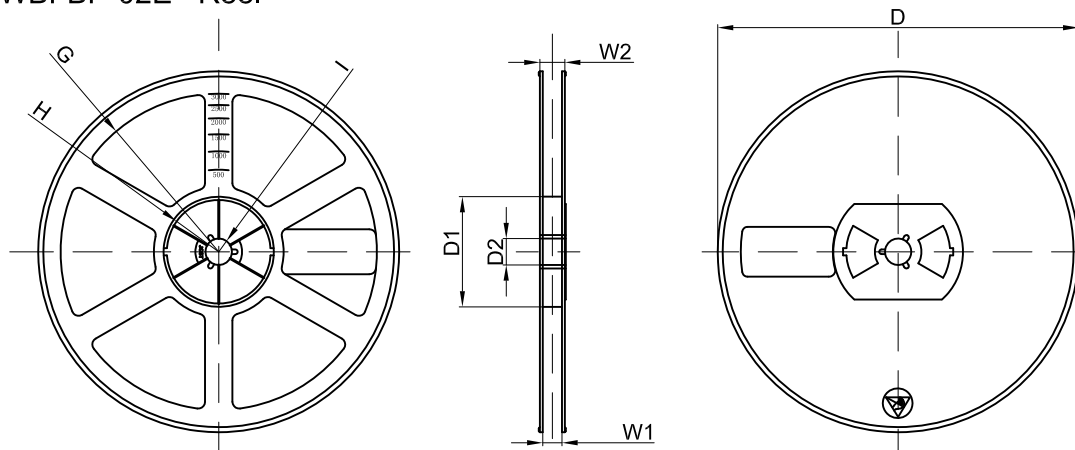
Dimensions are in millimeter

| Pkg type  | a    | B    | C    | d     | E    | F    | P0   | P    | P1   | W    |
|-----------|------|------|------|-------|------|------|------|------|------|------|
| WBFBP-02E | 0.41 | 0.70 | 0.38 | Ø1.50 | 1.75 | 3.50 | 4.00 | 2.00 | 2.00 | 8.00 |

## WBFBP-02E Tape Leader and Trailer



## WBFBP-02E Reel



Dimensions are in millimeter

| Reel Option | D       | D1    | D2    | G      | H      | I     | W1   | W2    |
|-------------|---------|-------|-------|--------|--------|-------|------|-------|
| 7" Dia      | Ø178.00 | 54.40 | 13.00 | R78.00 | R25.60 | R6.50 | 9.50 | 12.30 |

| REEL       | Reel Size | Box         | Box Size(mm) | Carton      | Carton Size(mm) | G.W.(kg) |
|------------|-----------|-------------|--------------|-------------|-----------------|----------|
| 10,000 pcs | 7 inch    | 150,000 pcs | 203×203×195  | 600,000 pcs | 438×438×220     |          |