



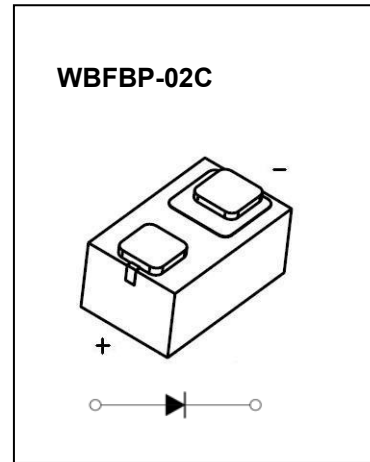
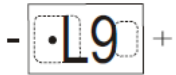
**WBFBP-02C Plastic-Encapsulate Diodes**

**DS54LED02** Schottky Barrier Diode

**FEATURES**

- Extremely Fast Switching Speed
- Low Forward Voltage

**MARKING: L9**



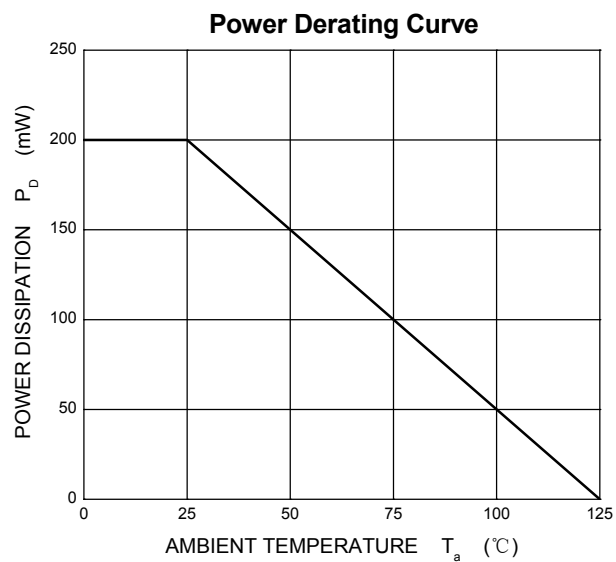
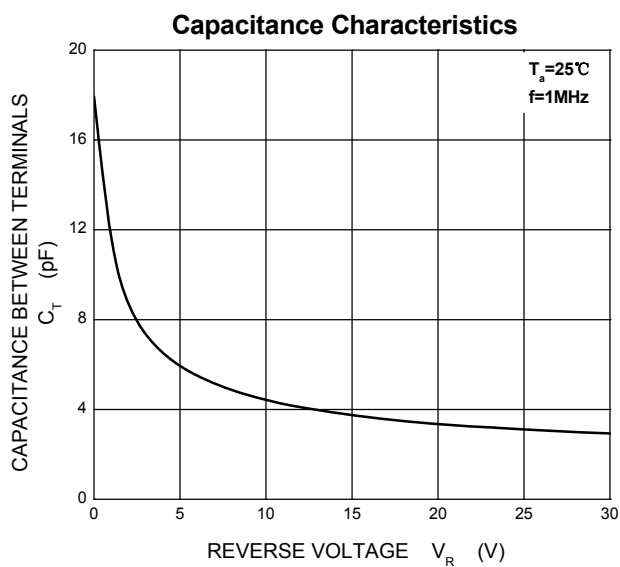
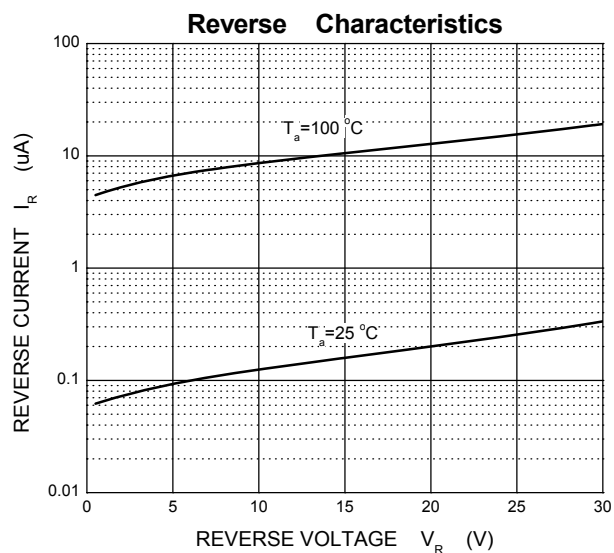
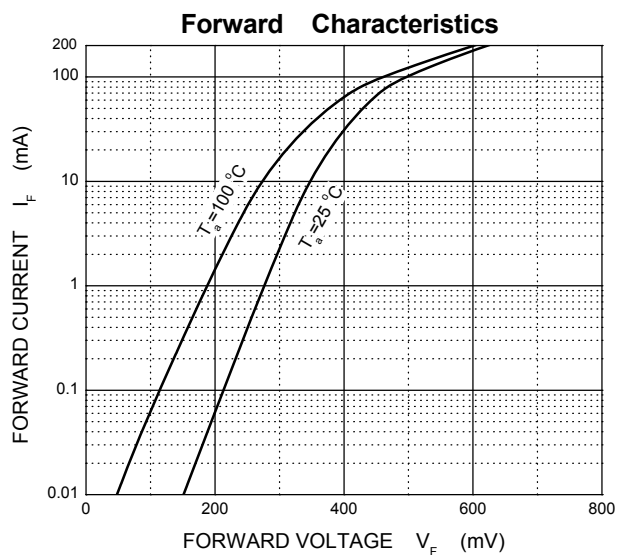
**Maximum Ratings @T<sub>a</sub>=25°C**

| Parameter  | Symbol           | Limits     | Unit |
|--|------------------|------------|------|
| Non-Repetitive Peak reverse voltage                | V <sub>RM</sub>  | 30         | V    |
| DC Blocking Voltage                                | V <sub>R</sub>   | 21         | V    |
| Average Rectified Output Current                   | I <sub>O</sub>   | 100        | mA   |
| Forward continuous Current                         | I <sub>F</sub>   | 200        | mA   |
| Repetitive peak Forward Current                    | I <sub>FRM</sub> | 300        | mA   |
| Non-repetitive Peak Forward Surge Current @t=8.3ms | I <sub>FSM</sub> | 600        | mA   |
| Power Dissipation                                  | P <sub>d</sub>   | 200        | mW   |
| Thermal resistance, junction to ambient air        | R <sub>θJA</sub> | 625        | °C/W |
| Operating Junction Temperature Range               | T <sub>J</sub>   | -40 ~ +125 | °C   |
| Storage Temperature Range                          | T <sub>STG</sub> | -55 ~ +150 | °C   |

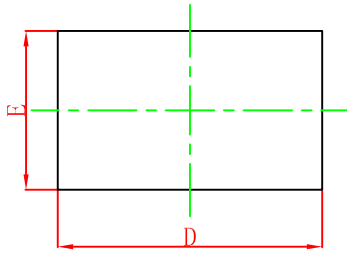
**Electrical Characteristics @T<sub>a</sub>=25°C**

| Parameter                     | Symbol             | Conditions  | Min | Typ | Max  | Unit |
|-------------------------------|--------------------|---|-----|-----|------|------|
| Reverse Breakdown Voltage     | V <sub>(BR)R</sub> | I <sub>R</sub> =100μA   | 30  |     |      | V    |
| Forward voltage               | V <sub>F1</sub>    | I <sub>F</sub> =0.1mA   |     |     | 240  | mV   |
|                               | V <sub>F2</sub>    | I <sub>F</sub> =1.0mA   |     |     | 320  | mV   |
|                               | V <sub>F3</sub>    | I <sub>F</sub> =10mA  |     |     | 400  | mV   |
|                               | V <sub>F4</sub>    | I <sub>F</sub> =30mA  |     |     | 500  | mV   |
|                               | V <sub>F5</sub>    | I <sub>F</sub> =100mA   |     |     | 1000 | mV   |
| Reverse current               | I <sub>R</sub>     | V <sub>R</sub> =25V   |     |     | 2.0  | uA   |
| Reverse recovery time         | t <sub>rr</sub>    | I <sub>F</sub> =10mA, I <sub>R</sub> =10mA to 1mA, R <sub>L</sub> =100Ω |     |     | 5.0  | ns   |
| Capacitance between terminals | C <sub>T</sub>     | V <sub>R</sub> =1V, f=1MHz  |     |     | 10   | pF   |

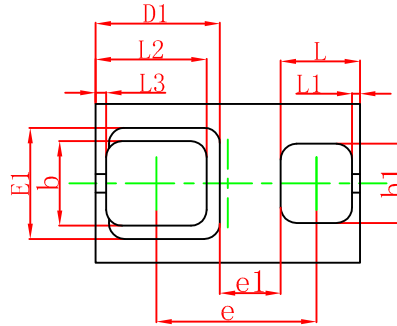
# Typical Characteristics



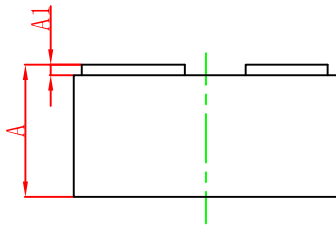
## WBFBP-02C Package Outline Dimensions



TOP VIEW



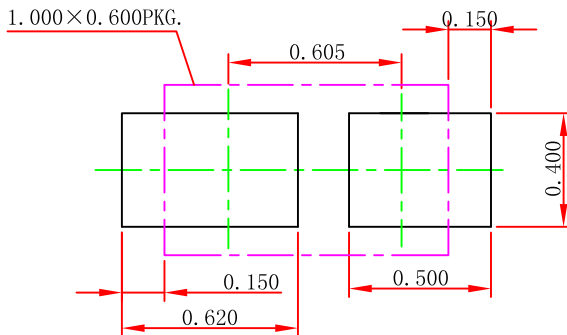
BOTTOM VIEW



SIDE VIEW

| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min.                      | Max.  | Min.                 | Max.  |
| A      | 0.450                     | 0.550 | 0.018                | 0.022 |
| A1     | 0.010                     | 0.100 | 0.000                | 0.004 |
| D      | 0.950                     | 1.050 | 0.037                | 0.041 |
| E      | 0.550                     | 0.650 | 0.022                | 0.026 |
| D1     | 0.470REF.                 |       | 0.019REF.            |       |
| E1     | 0.420REF.                 |       | 0.017REF.            |       |
| b      | 0.270                     | 0.370 | 0.011                | 0.015 |
| b1     | 0.250                     | 0.350 | 0.010                | 0.014 |
| e      | 0.555                     | 0.655 | 0.022                | 0.026 |
| e1     | 0.230REF.                 |       | 0.009REF.            |       |
| L      | 0.250                     | 0.350 | 0.010                | 0.014 |
| L1     | 0.030REF.                 |       | 0.001REF.            |       |
| L2     | 0.370                     | 0.470 | 0.015                | 0.019 |
| L3     | 0.040REF.                 |       | 0.002REF.            |       |

## WBFBP-02C Suggested Pad Layout



**Note:**

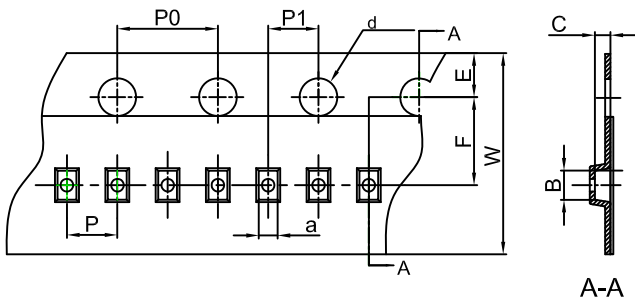
1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.050$ mm.
3. The pad layout is for reference purposes only.

**NOTICE**

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

# DFN/FBP(1.0X0.6) Tape and Reel

## DFN/FBP(1.0×0.6) Embossed Carrier Tape

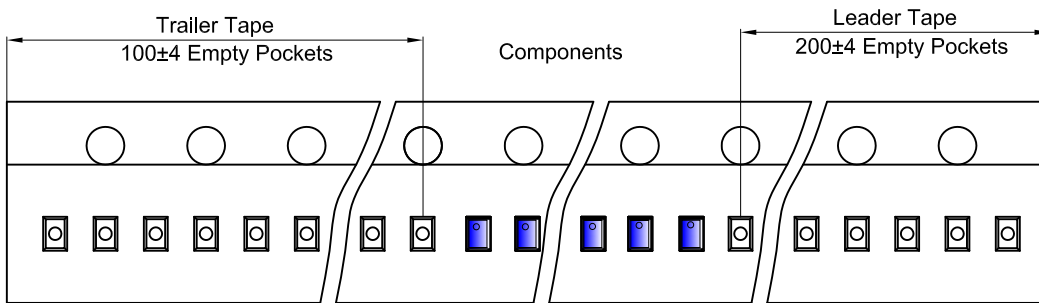


**Packaging Description:**

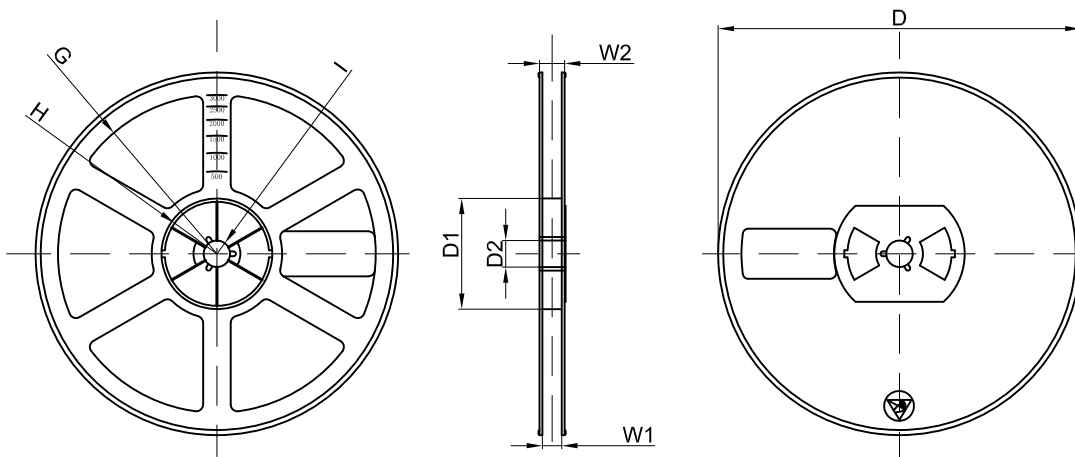
**DFN/FBP(1.0×0.6)** parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These 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).

| Dimensions are in millimeter |      |      |      |       |      |      |      |      |      |      |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|
| Pkg type                     | a    | B    | C    | d     | E    | F    | P0   | P    | P1   | W    |
| DFN/FBP(1.0×0.6)             | 0.66 | 1.15 | 0.66 | Ø1.50 | 1.75 | 3.50 | 4.00 | 2.00 | 2.00 | 8.00 |

## DFN/FBP(1.0×0.6) Tape Leader and Trailer



## DFN/FBP(1.0×0.6) 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) |
|-----------|-----------|-------------|--------------|-------------|-----------------|----------|
| 10000 pcs | 7 inch    | 150,000 pcs | 203×203×195  | 600,000 pcs | 438×438×220     |          |