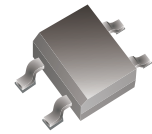


## CDBHM220L-G Thru. CDBHM2100L-G

Reverse Voltage: 20 to 100 Volts

Forward Current: 2.0 Amp

RoHS Device

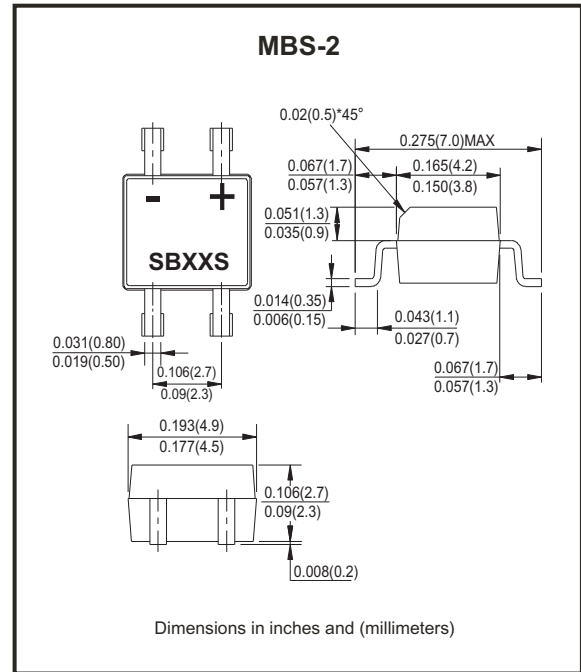


### Features

- For surface mounted applications..
- Metal-Semiconductor junction with guarding.
- Epitaxial construction.
- Very low forward Voltage drop .
- High current capability
- Plastic material has UL flammability classification 94V-0
- For use in low voltage,high frequency inverters, free wheeling , and polarity protection applications.
- Pb free product.

### Mechanical data

- Case: molded plastic.
- Polarity: Indicated by cathode band.
- Weight:0.125 gram(approx.).



xxx = Product type marking code

### Maximum Rating And Electrical Characteristics

Rating at  $T_A=25^{\circ}\text{C}$ , unless otherwise noted.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| Parameter                                                                                                 | Symbol            | CDBHM<br>220L-G | CDBHM<br>230L-G | CDBHM<br>240L-G | CDBHM<br>250L-G | CDBHM<br>260L-G | CDBHM<br>280L-G | CDBHM<br>290L-G | CDBHM<br>2100L-G | Unit |
|-----------------------------------------------------------------------------------------------------------|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------|
|                                                                                                           | Marking           | SB22S           | SB23S           | SB24S           | SB25S           | SB26S           | SB28S           | SB29S           | SB210S           |      |
| Maximum Recurrent Peak Reverse Voltage                                                                    | V <sub>RRM</sub>  | 20              | 30              | 40              | 50              | 60              | 80              | 90              | 100              | V    |
| Maximum RMS Voltage                                                                                       | V <sub>RMS</sub>  | 14              | 21              | 28              | 35              | 42              | 56              | 63              | 70               | V    |
| Maximum DC Blocking Voltage                                                                               | V <sub>DC</sub>   | 20              | 30              | 40              | 50              | 60              | 80              | 90              | 100              | V    |
| Maximum Average Forward Rectified Current<br>@T <sub>L</sub> =100 °C                                      | I <sub>(AV)</sub> | 2.0             |                 |                 |                 |                 |                 |                 |                  | A    |
| Peak Forward Surge Current, 8.3mS single half sine-wave, superimposed on rated load (JEDEC Method)        | I <sub>FSM</sub>  | 50              |                 |                 |                 |                 |                 |                 |                  | A    |
| Maximum Forward Voltage at 2.0A DC                                                                        | V <sub>F</sub>    | 0.55            |                 |                 | 0.70            |                 | 0.85            |                 |                  | V    |
| Maximum DC Reverse Current @T <sub>J</sub> =25 °C<br>at Rated DC Blocking Voltage @T <sub>J</sub> =100 °C | I <sub>R</sub>    | 1.0<br>20       |                 |                 |                 |                 |                 |                 |                  | mA   |
| Typical Junction Capacitance (Note 1)                                                                     | C <sub>J</sub>    | 125             |                 |                 |                 |                 |                 |                 |                  | pF   |
| Typical Thermal Resistance (Note 2)                                                                       | R <sub>θJA</sub>  | 20              |                 |                 |                 |                 |                 |                 |                  | °C/W |
| Operating Temperature Range                                                                               | T <sub>J</sub>    | -55 to +125     |                 |                 |                 |                 |                 |                 |                  | °C   |
| Storage Temperature Range                                                                                 | T <sub>STG</sub>  | -55 to +150     |                 |                 |                 |                 |                 |                 |                  | °C   |

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
2. Thermal resistance junction to lead.

Company reserves the right to improve product design , functions and reliability without notice.

REV: B

## RATING AND CHARACTERISTIC CURVES (CDBHM220L-G Thru. CDBHM2100L-G)

FIG. 1 - FORWARD CURRENT DERATING CURVE

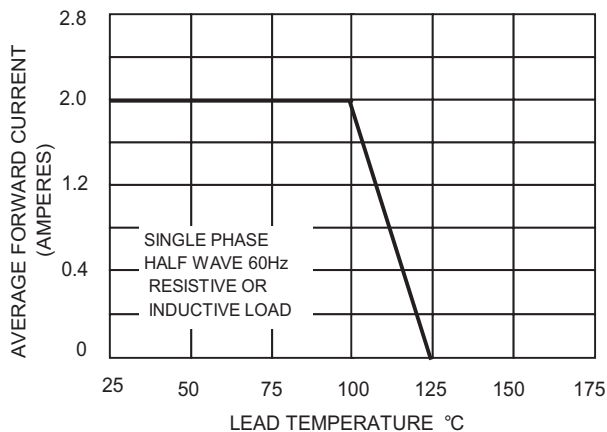


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

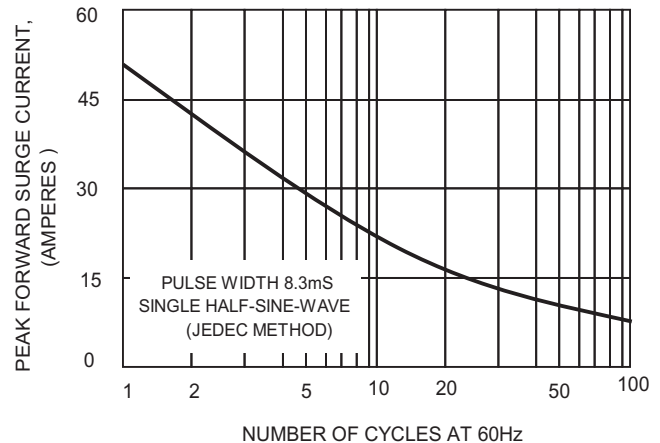


FIG.3-TYPICAL FORWARD CHARACTERISTICS

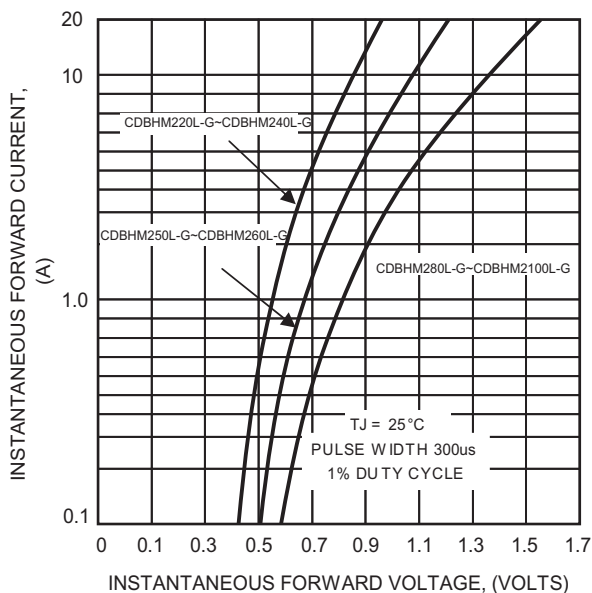


FIG.4-TYPICAL JUNCTION CAPACITANCE

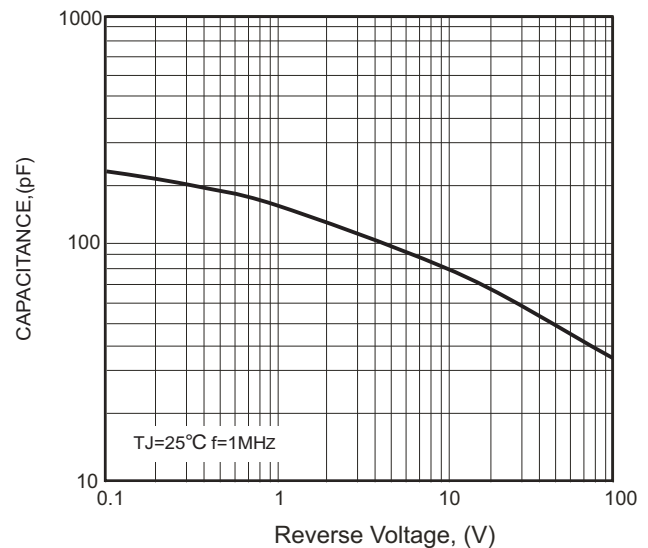
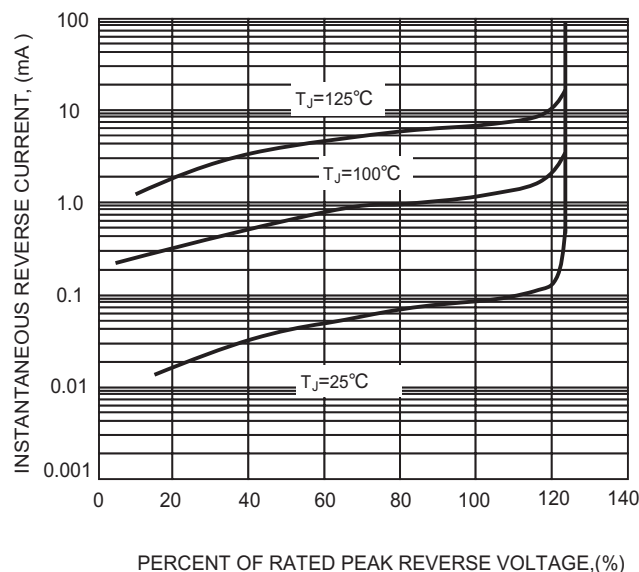


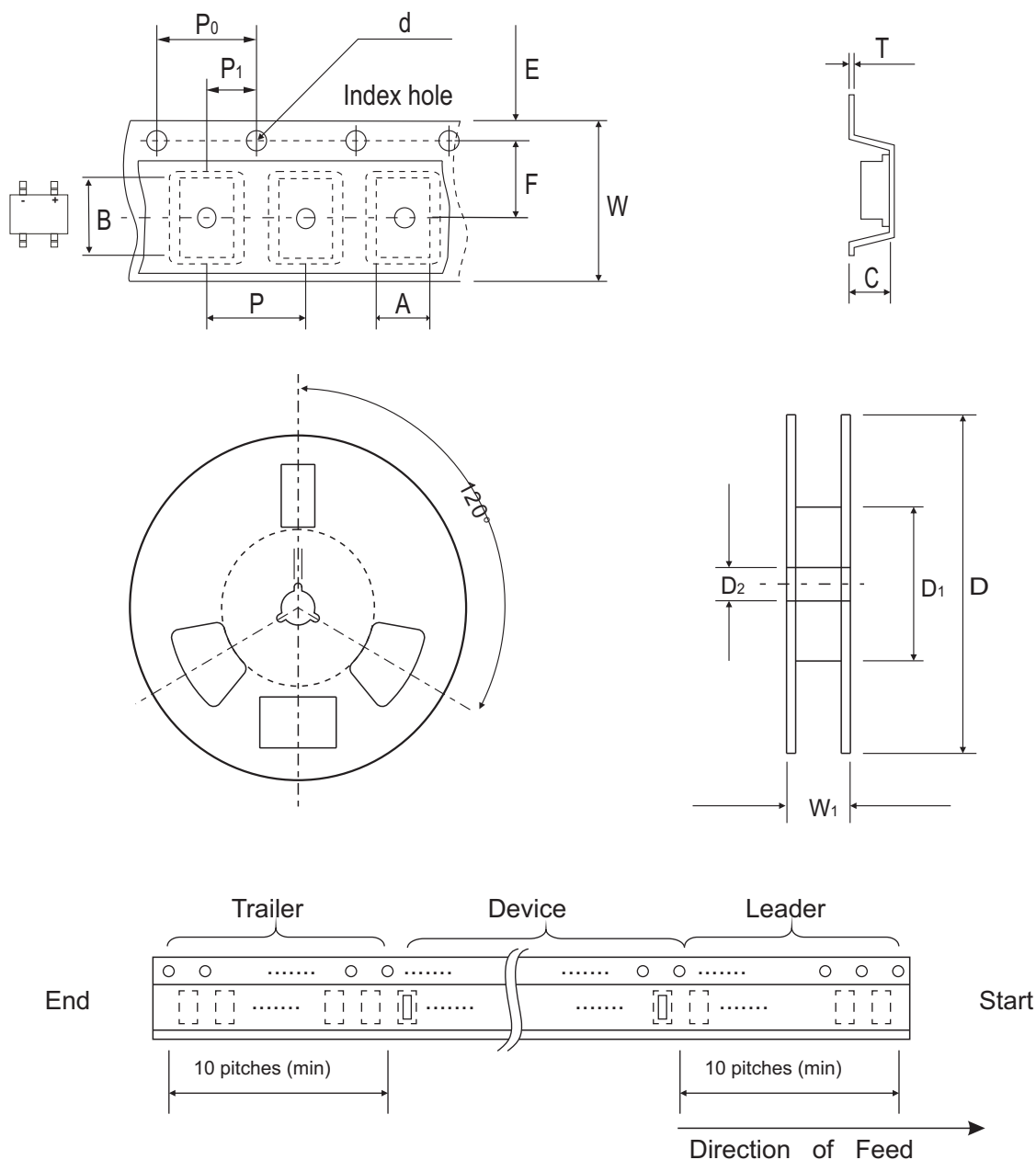
FIG.5-TYPICAL REVERSE CHARACTERISTICS



Company reserves the right to improve product design , functions and reliability without notice.

REV: B

## Reel Taping Specification

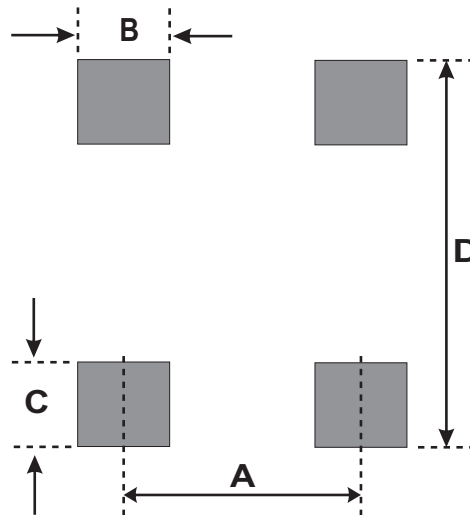


| MBS-2 | SYMBOL | A            | B             | C             | d              | D     | D <sub>1</sub> | D <sub>2</sub> |
|-------|--------|--------------|---------------|---------------|----------------|-------|----------------|----------------|
|       | (mm)   | 4.90 ± 0.01  | 7.24 ± 0.10   | 3.33 ± 0.10   | 1.55 ± 0.10    | 330.0 | 50.0 MIN.      | 13.0 ± 0.20    |
|       | (inch) | 0.93 ± 0.004 | 0.285 ± 0.004 | 0.131 ± 0.004 | 0.0610 ± 0.004 | 13.00 | 1.969 MIN.     | 0.512 ± 0.008  |

| MBS-2 | SYMBOL | E             | F             | P             | P <sub>0</sub> | P <sub>1</sub> | W             | W <sub>1</sub> |
|-------|--------|---------------|---------------|---------------|----------------|----------------|---------------|----------------|
|       | (mm)   | 1.75 ± 0.10   | 5.50 ± 0.05   | 8.00 ± 0.10   | 4.00 ± 0.10    | 2.00 ± 0.05    | 12.00 ± 0.30  | 12.0~14.40     |
|       | (inch) | 0.069 ± 0.004 | 0.217 ± 0.002 | 0.315 ± 0.004 | 0.157 ± 0.004  | 0.079 ± 0.002  | 0.472 ± 0.012 | 0.472~0.657    |

## Suggested PAD Layout

| SIZE | MBS-2    |           |
|------|----------|-----------|
|      | (mm)     | (inch)    |
| A    | 2.55 REF | 0.100 REF |
| B    | 0.82 MIN | 0.032MIN  |
| C    | 0.92 MIN | 0.036 MIN |
| D    | 7.00 MAX | 0.276MAX  |



## Standard Packaging

| Case Type | REEL PACK       |                     |
|-----------|-----------------|---------------------|
|           | REEL<br>( pcs ) | Reel Size<br>(inch) |
| MBS-2     | 3,000           | 13                  |