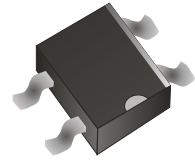


## CDBHM120L-G Thru. CDBHM1100L-G

Reverse Voltage: 20 to 100 Volts

Forward Current: 1.0 Amp

RoHS Device

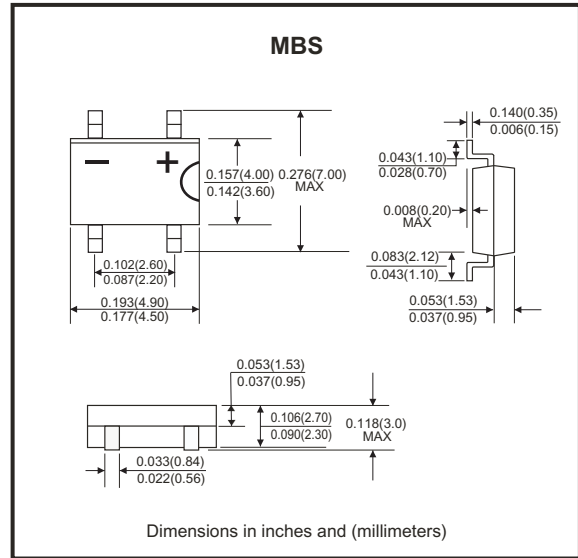


### Features

- High surge forward current capability.
- Low Forward voltage drop.
- General purpose 1 phase Bridge rectifier applications
- UL recognized file # E230084

### Mechanical data

- Case: molded plastic
- Epoxy: UL 94V-0 rate flame retardant.
- Lead: solder plated
- Polarity: As marked
- Weight: 0.125 gram(approx)



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz resistive or inductive load.  
For capacitive load, derate current by 20%

| Parameter   | Symbol                | Conditions                                     | CDBHM-G     |      |      |      |       | Units            |
|---|-----------------------|--|-------------|------|------|------|-------|------------------|
|   |                       |  | 120L        | 140L | 160L | 180L | 1100L |                  |
| Max. Repetitive peak reverse voltage  | $V_{RRM}$             |  | 20          | 40   | 60   | 80   | 100   | V                |
| Max. DC blocking voltage  | $V_{DC}$              |  | 20          | 40   | 60   | 80   | 100   | V                |
| Max. RMS voltage  | $V_{RMS}$             |  | 14          | 28   | 42   | 56   | 70    | V                |
| Average rectified output current<br>@60Hz sine wave, R-load, $T_A=25^\circ\text{C}$                     | $I_o$                 | On alumina substrate                           | 1.0         |      |      |      |       | A                |
|   |                       | On glass-epoxi substrate                       | 0.8         |      |      |      |       |                  |
| Peak forward surge current, 8.3ms<br>single half sine-wave superimposed<br>on rated load (JEDEC method) | $I_{FSM}$             |  | 40          |      |      |      |       | A                |
| Max. Peak forward voltage   | $V_{FM}$              | $I_{FM}=0.5A$                                  | 0.55        | 0.65 | 0.85 |      |       | V                |
| Max. Peak reverse current   | $I_{RRM}$             | $V_{RM}=V_{RRM}$                               | 0.5         |      |      |      |       | mA               |
| Max. Current Squared Time   | $I^2t$                | $1ms \leq t < 8.3ms$<br>$T_A=25^\circ\text{C}$ | 6.6         |      |      |      |       | A <sup>2</sup> S |
| Max. Thermal resistance   | $R_{\theta JA}^{(1)}$ | On alumina substrate                           | 76          |      |      |      |       | °C/W             |
|   |                       | On glass-epoxi substrate                       | 134         |      |      |      |       |                  |
|   | $R_{\theta JL}$       | Between junction and lead                      | 20          |      |      |      |       |                  |
| Operating temperature range   | $T_J$                 |  | -55 to +150 |      |      |      |       | °C               |
| Storage temperature range   | $T_{STG}$             |  | -55 to +150 |      |      |      |       | °C               |

Notes: 1. Between junction and ambient

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

REV: E

## Rating and Characteristics Curves (CDBHM120L-G Thru. CDBHM1100L-G)

Fig.1 - Forward Current Derating Curve

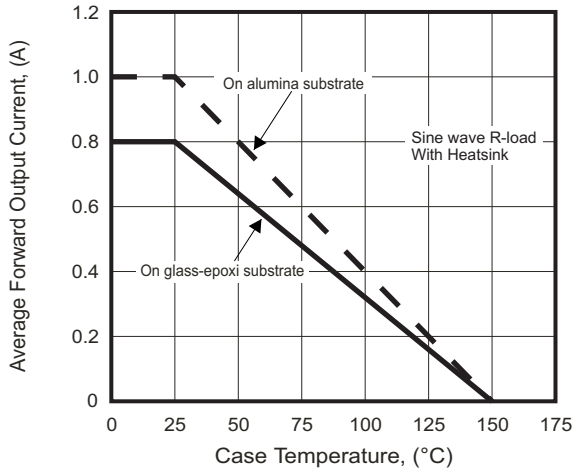


Fig.2 - Typical Forward Characteristics

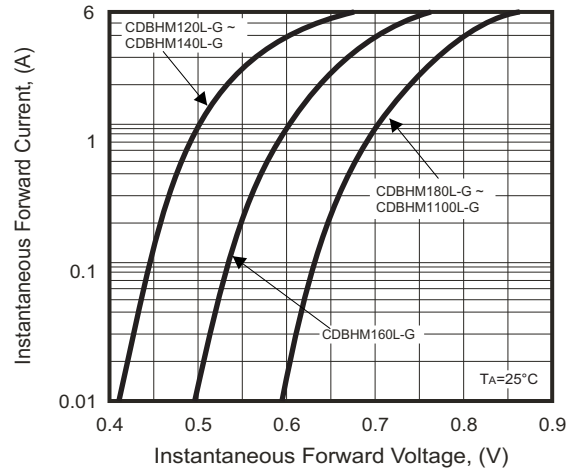


Fig.3 - Maximum Non-Repetitive Surge Current

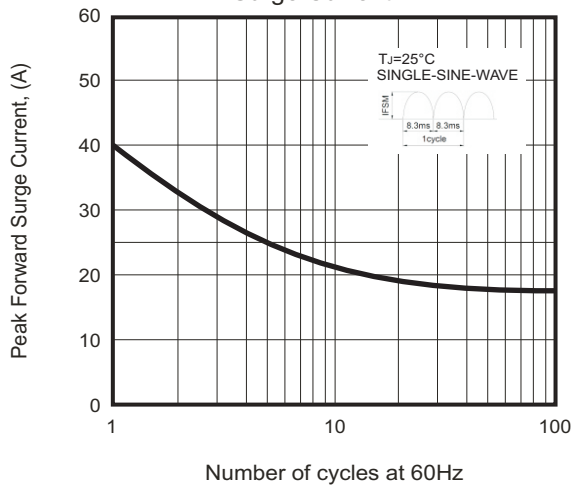
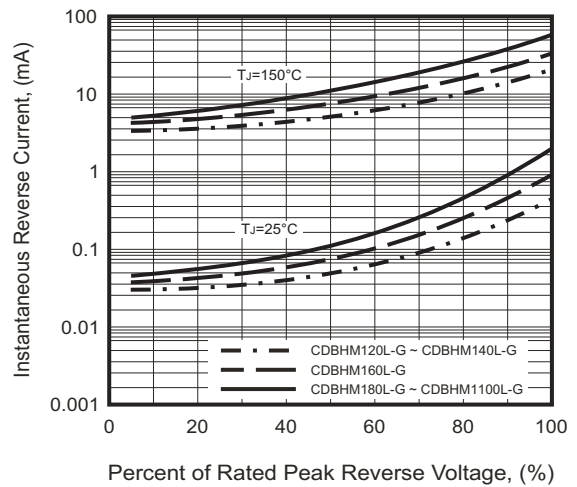
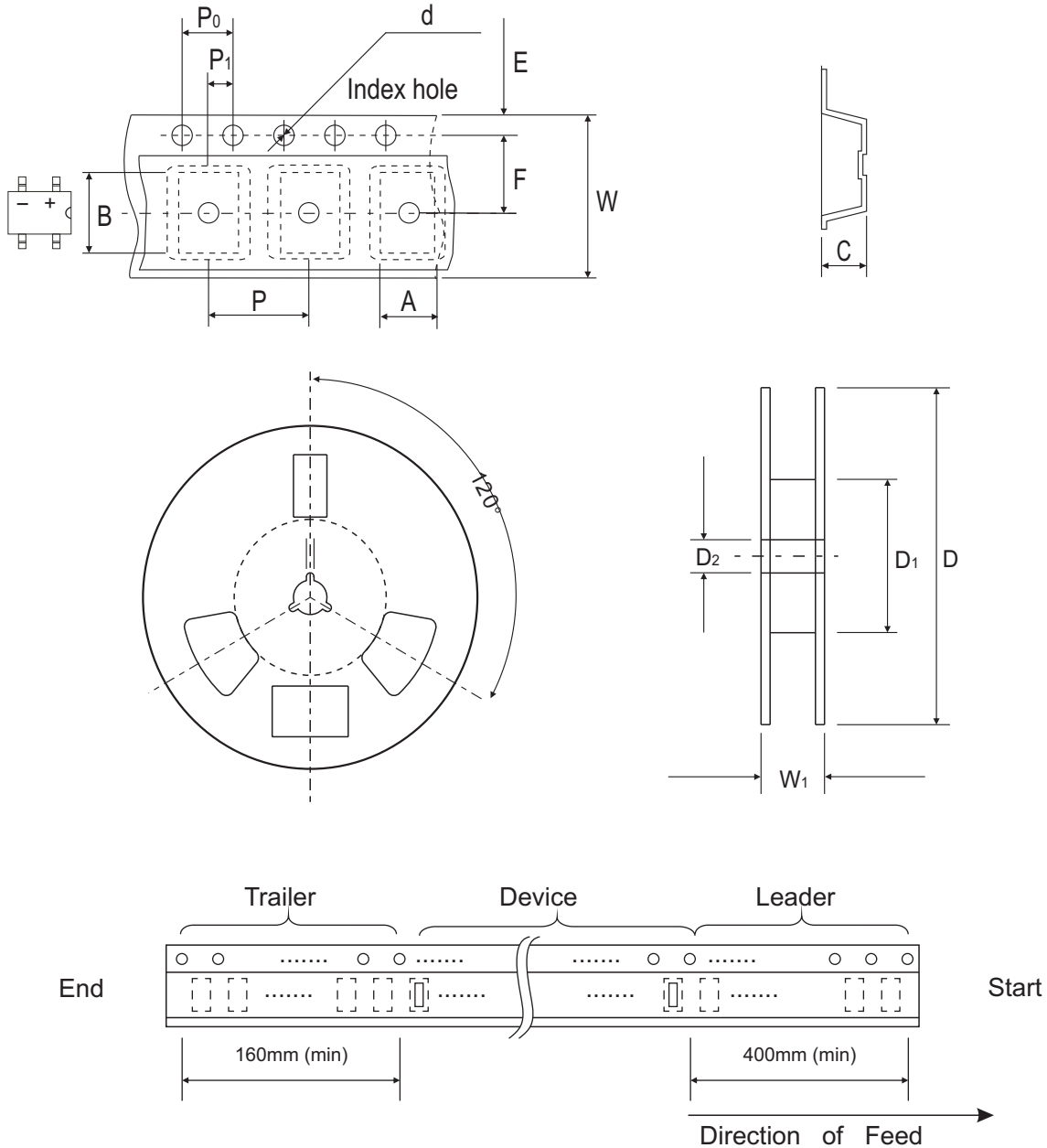


Fig.4 - Typical Reverse Characteristics



## Reel Taping Specification



| MBS | SYMBOL | A             | B             | C             | d             | D             | D1         | D2            |
|-----|--------|---------------|---------------|---------------|---------------|---------------|------------|---------------|
|     | (mm)   | 5.00 ± 0.10   | 7.24 ± 0.10   | 2.95 ± 0.10   | 1.55 ± 0.05   | 330.0 ± 2.00  | 50.0 Min.  | 13.0 ± 0.50   |
|     | (inch) | 0.197 ± 0.004 | 0.285 ± 0.004 | 0.116 ± 0.004 | 0.061 ± 0.002 | 13.00 ± 0.079 | 1.969 Min. | 0.512 ± 0.020 |

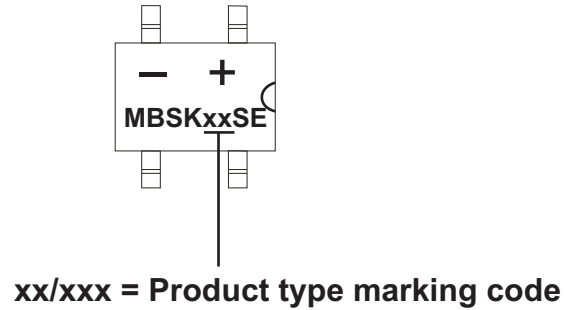
| MBS | SYMBOL | E             | F             | P             | P0            | P1            | W             | W1         |
|-----|--------|---------------|---------------|---------------|---------------|---------------|---------------|------------|
|     | (mm)   | 1.75 ± 0.10   | 5.50 ± 0.05   | 8.00 ± 0.10   | 4.00 ± 0.10   | 2.00 ± 0.10   | 12.00 ± 0.30  | 18.70 Max. |
|     | (inch) | 0.069 ± 0.004 | 0.217 ± 0.002 | 0.315 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.004 | 0.472 ± 0.012 | 0.736 Max. |

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

REV: E

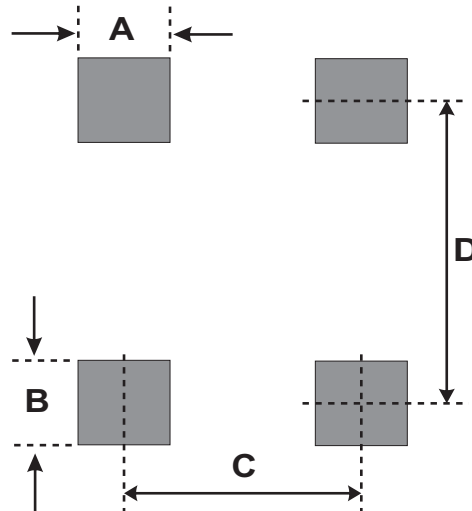
## Marking Code

| Part Number  | Marking Code |
|--------------|--------------|
| CDBHM120L-G  | MBSK12SE     |
| CDBHM140L-G  | MBSK14SE     |
| CDBHM160L-G  | MBSK16SE     |
| CDBHM180L-G  | MBSK18SE     |
| CDBHM1100L-G | MBSK110SE    |



## Suggested PAD Layout

| SIZE | MBS  |        |
|------|------|--------|
|      | (mm) | (inch) |
| A    | 1.20 | 0.047  |
| B    | 1.84 | 0.072  |
| C    | 2.40 | 0.094  |
| D    | 6.00 | 0.236  |



## Standard Packaging

| Case Type | REEL PACK    |                  |
|-----------|--------------|------------------|
|           | REEL ( pcs ) | Reel Size (inch) |
| MBS       | 2,500        | 13               |

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