



MMBD4148SE SURFACE MOUNT SWITCHING DIODE

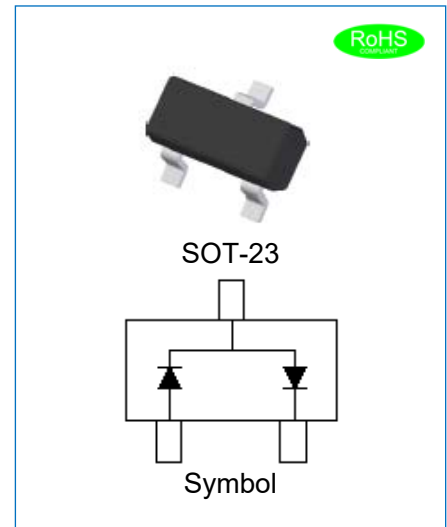
Rev.0.3

FEATURES

- ◇ Fast Switching Speed
- ◇ RoHS Compliant/Green EMC
- ◇ For General Purpose Switching Applications
- ◇ High Conductance
- ◇ Small Outline Surface Mount Package

MECHANICAL DATA

- ◇ Case: SOT-23, Plastic
- ◇ Weight: 0.004grams(approx.)
- ◇ Quantity Per Reel:3,000pcs
- ◇ Type Code: D4



ABSOLUTE MAXIMUM RATING CHARACTERISTICS

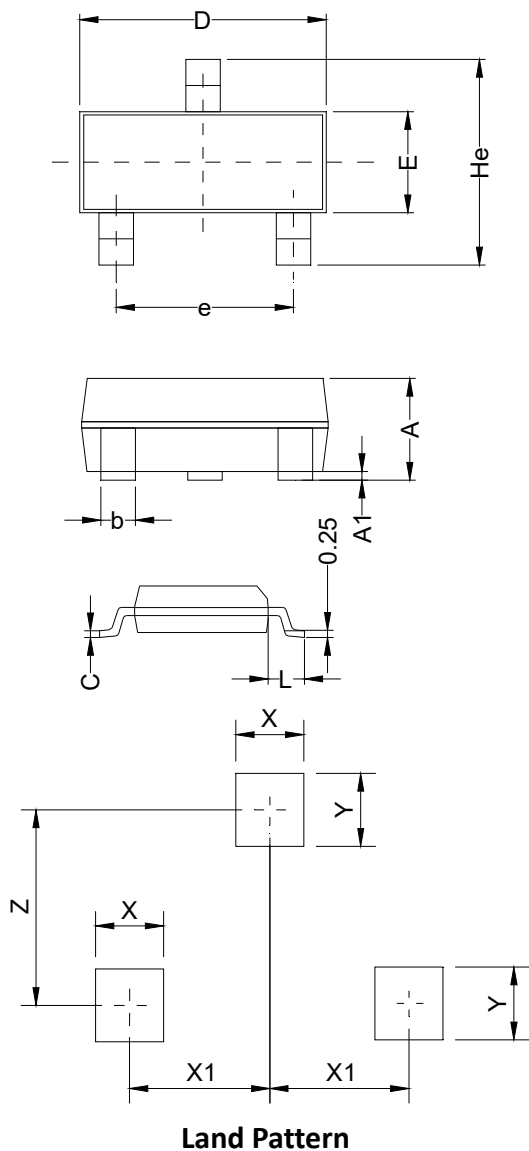
(Rating at 25°C ambient temperature unless otherwise specified.)

| Parameter | Symbol | MMBD4148SE | Unit |
|--|-----------------|-------------|---------------|
| Continuous Reverse Voltage | V_R | 100 | V |
| Peak Repetitive Reverse Voltage | V_{RM} | 100 | V |
| Average Rectified Output Current | I_o | 200 | mA |
| Non-repetitive Peak Forward Surge Current at $t=8.3ms$ | I_{FSM} | 2 | A |
| Power Dissipation at $T_A=25^{\circ}C$ | P_D | 350 | mW |
| Thermal Resistance (Junction to Ambient) | $R_{\theta JA}$ | 357 | $^{\circ}C/W$ |
| Operating Junction Temperature Range | T_j | -55 to +150 | $^{\circ}C$ |
| Storage Temperature Range | T_{stg} | -55 to +150 | $^{\circ}C$ |

ELECTRICAL CHARACTERISTICS(Rating at 25°C ambient temperature unless otherwise specified.)

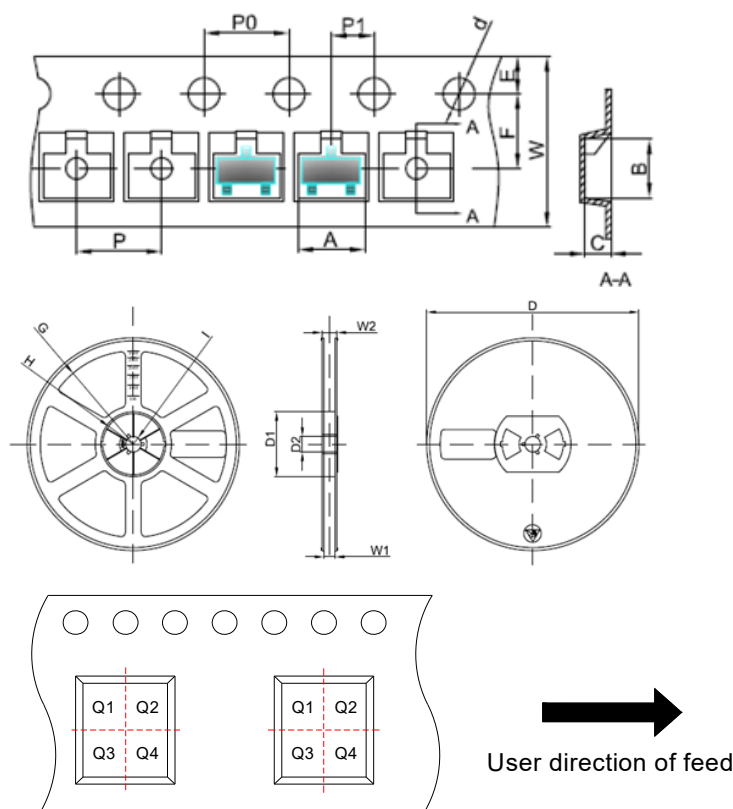
| Symbol | Parameter | Conditions | Value | | | Unit |
|-----------------|-----------------------|--|-------|------|------|------|
| | | | Min. | Typ. | Max. | |
| V _{BR} | Breakdown Voltage | I _R =100μA | 100 | - | - | V |
| | | I _R =5μA | 75 | - | - | V |
| V _F | Forward Voltage | I _F =10mA | - | - | 1 | V |
| I _R | Reverse Current | V _R =75V | - | - | 5 | μA |
| | | V _R =25V | - | - | 25 | nA |
| C _T | Capacitance | V _R =0V, f=1MHz | - | - | 4 | pF |
| t _{rr} | Reverse Recovery Time | I _F =I _R =10mA I _{RR} =1mA, V _R =6V | - | - | 4 | ns |

PACKAGE MECHANICAL DATA



| Symbol | Millimeters | | | Inches | | |
|--------|-------------|-------|------|----------|-------|-------|
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 0.90 | 1.063 | 1.15 | 0.035 | 0.042 | 0.045 |
| A1 | 0.00 | 0.075 | 0.14 | 0.000 | 0.003 | 0.006 |
| b | 0.30 | 0.40 | 0.50 | 0.012 | 0.016 | 0.020 |
| C | 0.07 | 0.10 | 0.15 | 0.003 | 0.004 | 0.006 |
| D | 2.80 | 2.90 | 3.00 | 0.110 | 0.114 | 0.118 |
| e | 1.80 | 1.90 | 2.00 | 0.071 | 0.075 | 0.079 |
| E | 1.20 | 1.30 | 1.40 | 0.047 | 0.051 | 0.055 |
| L | 0.55REF | | | 0.022REF | | |
| He | 2.25 | 2.40 | 2.55 | 0.089 | 0.094 | 0.100 |
| X | 0.80 | | | 0.031 | | |
| X1 | 0.95 | | | 0.037 | | |
| Y | 0.80 | | | 0.031 | | |
| Z | 2.02 | | | 0.080 | | |

TAPE AND REEL SPECIFICATION-SOT-23



Pin 1 quadrant: Q3

Packaging Description:

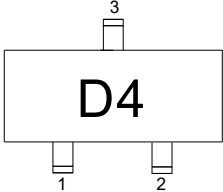
SOT-23 parts are shipped in tape. The carrier tape is made from a dissipative(carbon filled) polycarbonate resin. The cover tape is a multilayer film(heat activated adhesive in nature)primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000units per 7" or 17.8cm diameter reel. The reels are clear in color and made of polystyrene plastic(anti-static coated).

| Symbol | Millimeters | Inches |
|--------|-------------|--------|
| | Typ. | Typ. |
| A | 3.15 | 0.124 |
| B | 2.77 | 0.109 |
| C | 1.22 | 0.048 |
| d | Φ1.50 | Φ0.059 |
| E | 1.75 | 0.069 |
| F | 3.50 | 0.138 |
| P0 | 4.00 | 0.157 |
| P | 4.00 | 0.157 |
| P1 | 2.00 | 0.079 |
| W | 8.00 | 0.315 |
| D | Φ178 | Φ7.008 |
| D1 | 54.40 | 2.142 |
| D2 | 13.00 | 0.512 |
| G | R78.00 | R3.071 |
| H | R25.60 | R1.008 |
| I | R6.50 | R0.256 |
| W1 | 9.50 | 0.374 |
| W2 | 12.30 | 0.484 |

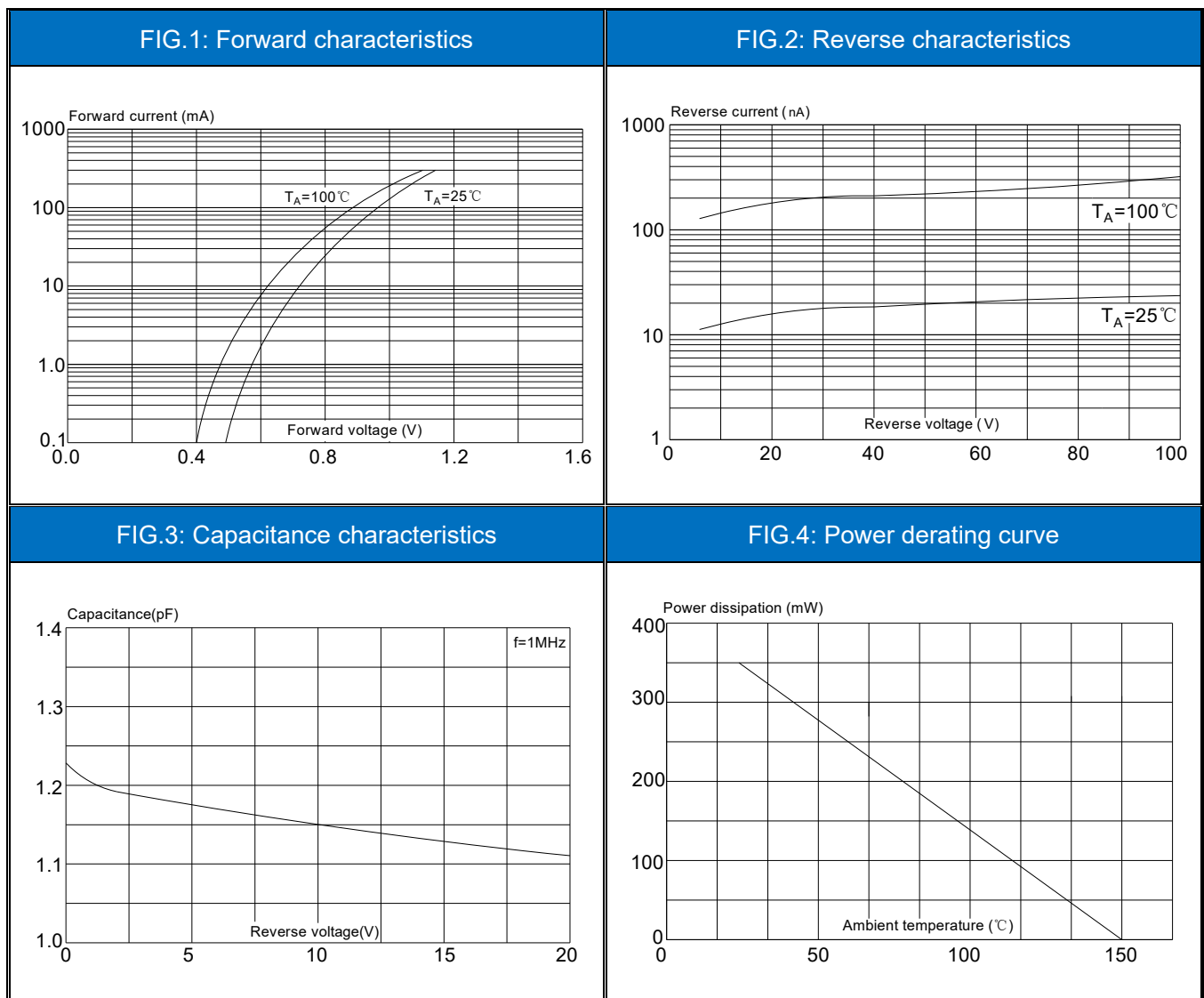
ORDERING INFORMATION

| OUTLINE | UNIT WEIGHT (g/PCS) typ. | PACKAGE TYPE | QUANTITY REEL | DESCRIPTION |
|---------|--------------------------|--------------|---------------|------------------|
| TAPING | 0.004 | SOT-23 | 3,000 | 7 inch reel pack |

MARKING CODE

| Part Number | Marking Code |
|-------------|--|
| MMBD4148SE |  |

CHARACTERISTICS CURVE




JieJie products are not designed for, and shall not be used for, any purpose (including, without limitation, automotive, military, aerospace, medical, life-saving, life-sustaining or nuclear facility applications, devices intended for surgical implant into the body, or any other application in which the failure or lack of desired operation of the product may result in personal injury, death, or property damage) other than those expressly set forth in applicable JieJie product documentation. Warranties granted by JieJie shall be deemed void for products used for any purpose not expressly set forth in applicable JieJie documentation. JieJie shall not be liable for any claims or damages arising out of products used in applications not expressly intended by JieJie as set forth in applicable JieJie documentation. The sale and use of JieJie products is subject to JieJie terms and conditions of sale, unless otherwise agreed by JieJie.

Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co., Ltd. assumes no responsibility for the consequences of use without consideration for such information nor use beyond it.

Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu JieJie complies with the agreement.

Products and information provided in this document have no infringement of patents. Jiangsu JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information.

This document is the 0.3rd version which is made in 10-Oct.-2024. This document supersedes and replaces all information previously supplied.

 is a registered trademark of Jiangsu JieJie Microelectronics Co., Ltd.

Copyright ©2024 Jiangsu JieJie Microelectronics Co., Ltd. Printed All rights reserved.