

# TDSEMIC

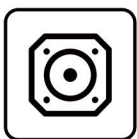
## 拓電半導體

自主封測 品質把控 售後保障

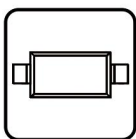
WEB | [WWW.TDSEMIC.COM](http://WWW.TDSEMIC.COM)



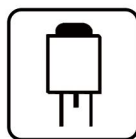
電源管理



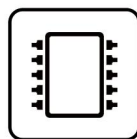
顯示驅動



二三極管



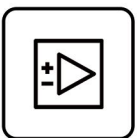
LDO穩壓器



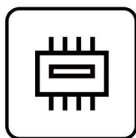
觸摸芯片



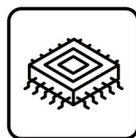
MOS管



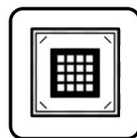
運算放大器



存儲芯片



MCU



串口通信

## FMSB30M-TD

產品規格說明書

#### FEATURES:

- Glass Passivated Chip Junction
- Reverse Voltage - 50 to 1000 V
- Forward Current - 3.0 A
- High Surge Current Capability
- Designed for Surface Mount Application

#### MECHANICAL DATA

- Case: UMSB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.234g / 0.00825oz

Marking code

FMB30A --- FMB30M

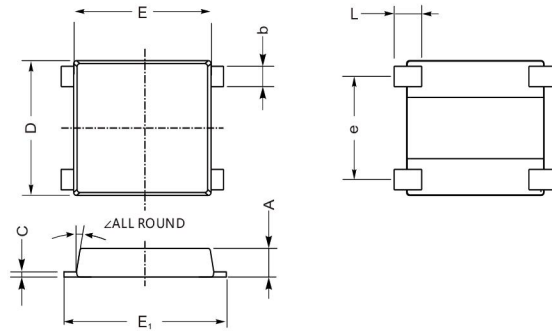
#### VOLTAGE RANGE

50 to 1000 Volts

#### CURRENT

3.0 Ampere

#### UMSB



| UNIT |     | A   | C    | D   | E   | E <sub>1</sub> | L    | e   | b    | ∠   |
|------|-----|-----|------|-----|-----|----------------|------|-----|------|-----|
| mm   | max | 1.5 | 0.29 | 7.0 | 7.6 | 8.9            | 1.6  | 5.3 | 1.15 | 10° |
|      | min | 1.3 | 0.17 | 6.2 | 7.1 | 8.4            | 1.0  | 4.9 | 0.95 |     |
| mil  | max | 59  | 12   | 276 | 299 | 350            | 55   | 209 | 45   |     |
|      | min | 51  | 7    | 244 | 280 | 331            | 31.5 | 193 | 37   |     |

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| TYPE NUMBER                                                                                           | FMSB30A    | FMSB30B | FMSB30D | FMSB30G | FMSB30J | FMSB30K | FMSB30M | UNIT             |
|-------------------------------------------------------------------------------------------------------|------------|---------|---------|---------|---------|---------|---------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                | 50         | 100     | 200     | 400     | 600     | 800     | 1000    | V                |
| Maximum RMS Voltage                                                                                   | 35         | 70      | 140     | 280     | 420     | 560     | 700     | V                |
| Maximum DC Blocking Voltage                                                                           | 50         | 100     | 200     | 400     | 600     | 800     | 1000    | V                |
| Maximum Average Forward Rectified Current<br>at Ta=25°C                                               | 3.0        |         |         |         |         |         |         | A                |
| Peak Forward Surge Current, 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | 100        |         |         |         |         |         |         | A                |
| I <sup>2</sup> t Rating for Fusing (1ms < t < 8.3ms)                                                  | 41.5       |         |         |         |         |         |         | A <sup>2</sup> S |
| Maximum Forward Voltage Drop per Bridge Element at 3.0A.                                              | 1.3        |         |         |         |         |         |         | V                |
| Maximum DC Reverse Current<br>Ta=25°C                                                                 | 5.0        |         |         |         |         |         |         | μA               |
| at Rated DC Blocking Voltage<br>Ta=100°C                                                              | 200        |         |         |         |         |         |         | μA               |
| Maximum Reverse Recovery Time (Note 1)                                                                | 500        |         |         |         |         |         |         | ns               |
| Typical Junction Capacitance (Note 2)                                                                 | 40         |         |         |         |         |         |         | pF               |
| Typical Thermal Resistance R <sub>JA</sub> (Note 3)                                                   | 30         |         |         |         |         |         |         | °C/W             |
| Operating and Storage Temperature Range T <sub>J</sub> , T <sub>stg</sub>                             | -65 — +150 |         |         |         |         |         |         | °C               |

#### NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. Thermal Resistance from Junction to Ambient.

### RATING AND CHARACTERISTIC CURVES (FMSB30A THRU FMSB30M)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

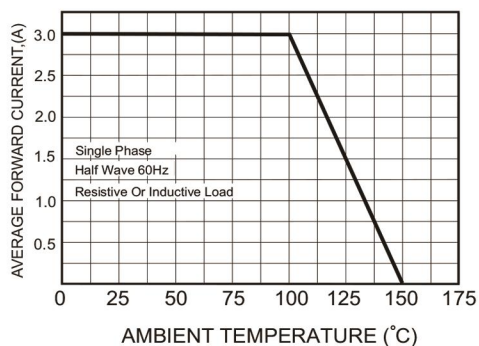


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

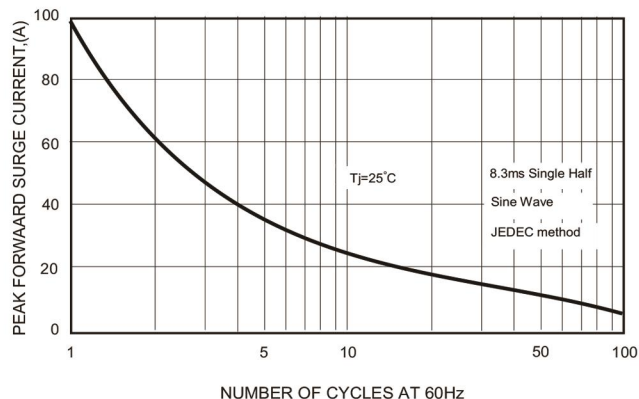


FIG.3-TYPICAL FORWARD CHARACTERISTICS

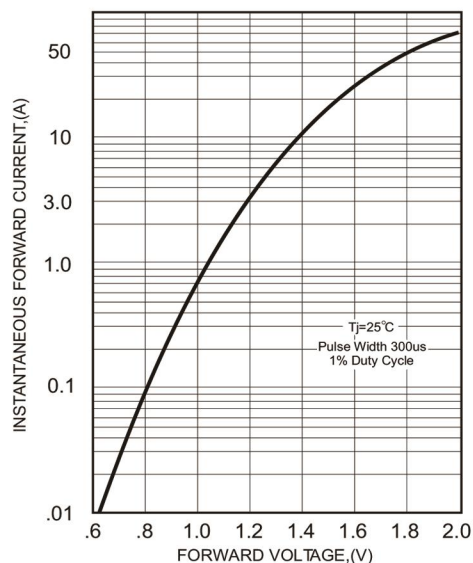


FIG.4-TYPICAL REVERSE CHARACTERISTICS

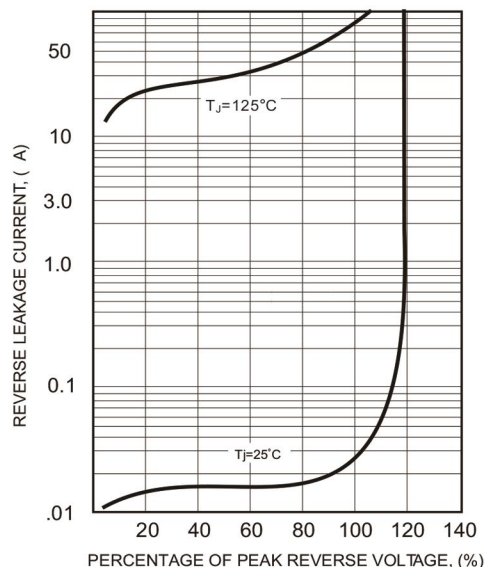


FIG.5-TYPICAL JUNCTION CAPACITANCE

