

FrelTec

Mathildenstr. 10A
82319 Starnberg
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Bridge Rectifier
MBS

FrelTec

MBS

SPECIFICATION

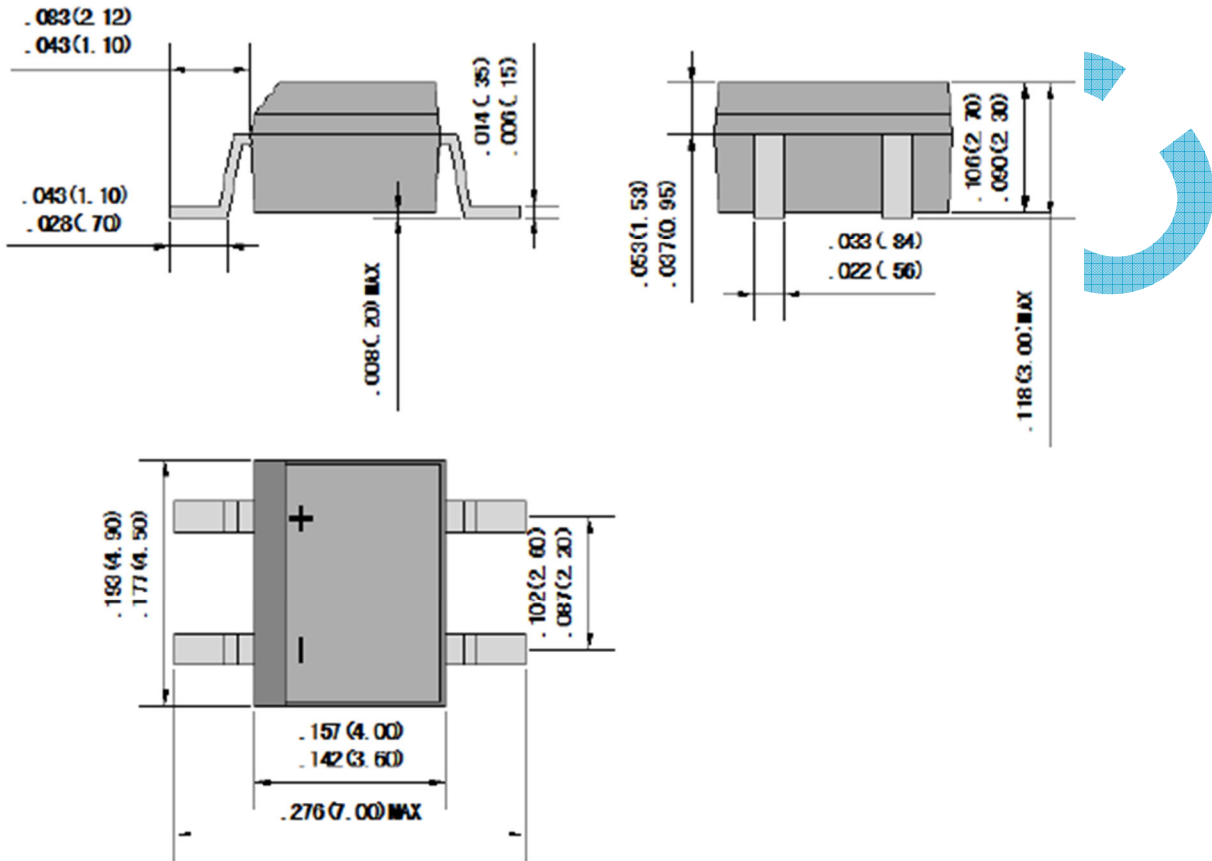
| 683 | MB_Sxxxxx | MBSX | L03 |
|-----------------------------|-----------|---------|--|
| Type | Type | Package | Packing |
| 683: Bridge Rectifier | MB_S | MBS | L03: tape and Reel(embossed tape) for 3000 pc (13'reel) |

All products according to RoHS (2015/863/EU)

FrelTec

PACKAGE OUTLINE

MBS



Unit: inch (mm)

MBS

Maximum Ratings & Characteristics

Ratings at 25°C ambient temperature unless otherwise specified,

| Parameter | Symbols | MB2S | MB4S | MB6S | MB8S | MB10S | Unit |
|--|-----------------|-------------|------|------|------|-------|--------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | V_{DC} | 200 | 400 | 600 | 800 | 1000 | V |
| (Note 1) $T_A = 25^\circ\text{C}$ Maximum average forward rectified current | $I_{F(AV)}$ | 0,8 | | | | | A |
| (Note 2) $T_A = 25^\circ\text{C}$ Maximum average forward rectified current | | 0,5 | | | | | A |
| Non-repetitive peak forward surge current 8,3 ms singlehalf sine-wave | I_{FSM} | 30 | | | | | A |
| @ $I_F = 0,4\text{A}$ Maximum forward voltage | V_F | 1,0 | | | | | V |
| @ V_{DC} $T_A = 25^\circ\text{C}$ Maximum reverse current | I_R | 5 | | | | | μA |
| Typical thermal resistance (Note 3) | $R_{\theta JA}$ | 85 | | | | | $^\circ\text{C/W}$ |
| Typical thermal resistance (Note 4) | $R_{\theta JL}$ | 20 | | | | | |
| Operating junction and storage temperature range | T_j, T_{STG} | -55--- +150 | | | | | $^\circ\text{C}$ |

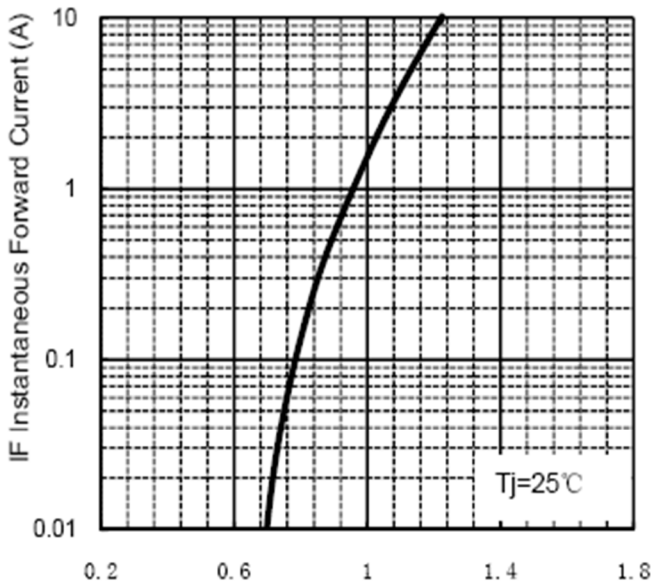
Note:

- 1) On alumina substrate
- 2) On glass-epoxi substrate
- 3) Thermal resistance from junction to ambient, PCB mounted
- 4) Between junction and lead

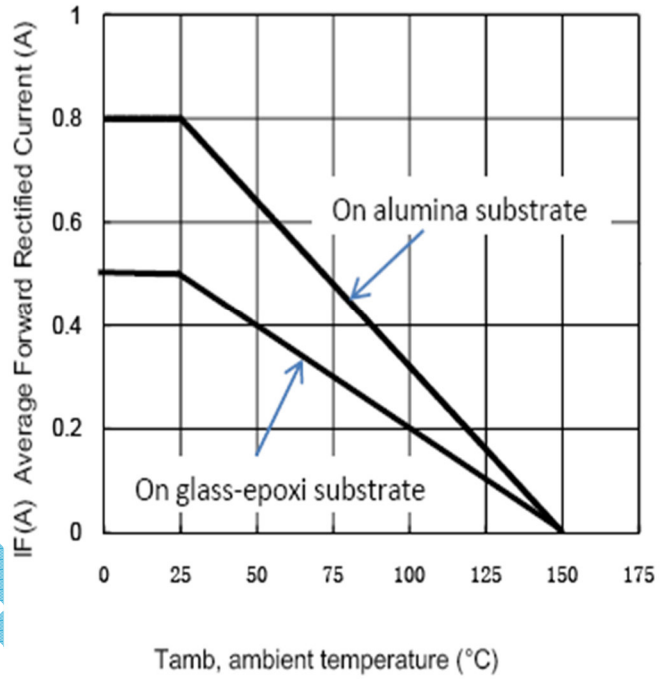
MBS

Characteristics(Typical)

TYPICAL FORWARD CHARACTERISTIC

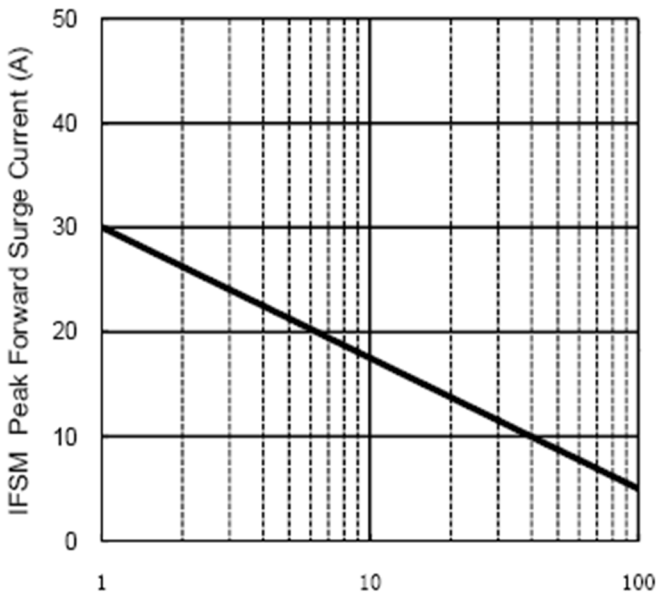


FORWARD CURRENT DERATING CURVE



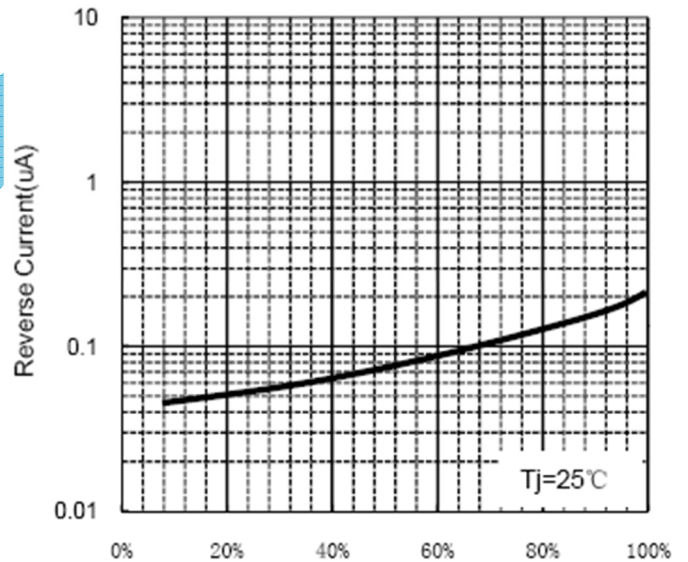
VF Instantaneous Forward Voltage (V)

PEAK FORWARD SURGE CURRENT



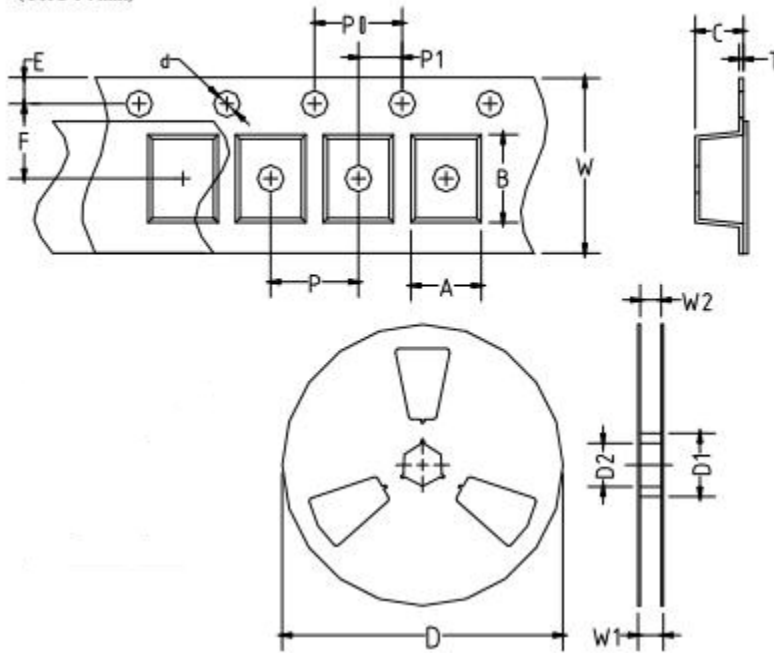
Number of Cycles at 50 Hz.

Typical Reverse Characteristics



Percent Of Rated Peak Reverse voltage %

Size (Unit:mm)

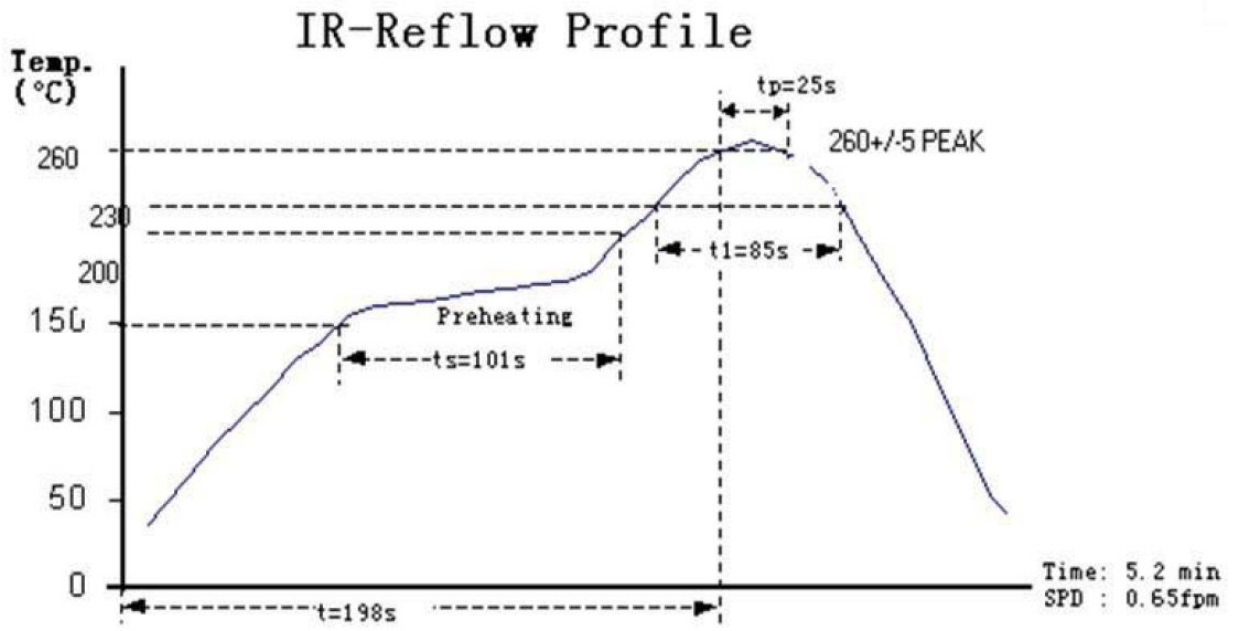


| Item | Symbol | MBS |
|------------------------|--------|------------|
| Carrier width | A | 3.77±0.10 |
| Carrier length | B | 5.70±0.10 |
| Carrier depth | C | 2.45±0.10 |
| Sprocket hole | d | 1.50±0.10 |
| Reel outside diameter | D | 330.0±1.0 |
| Reel inner diameter | D1 | 75±1.0 |
| Feed hole diameter | D2 | 13.5±1.0 |
| Sprocket hole position | E | 1.75±0.10 |
| Punch hole position | F | 5.50±0.05 |
| Punch hole pitch | P | 8.00±0.10 |
| Sprocket hole pitch | P0 | 4.00±0.10 |
| Embossment center | P1 | 2.00±0.10 |
| Total tape thickness | T | 0.25±0.10 |
| Tape width | W | 12.00±0.15 |
| Reel width | W1 | 18.1±1.5 |
| Reel width | W2 | 13.5±1.0 |

Stock period

The performance of these products, including the solderability, is guaranteed for 12 month, provided that they remain packed as they were when delivered and stored at a temperature of 0-35°C and a relative humidity 35-75%RH

Lead Free Reflow Soldering Profile



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