



HSMB320 thru HSMB3100

Schottky Barrier Rectifiers
(Reverse Voltage 20 to 100V, Forward Current 3A)

Features

- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capabilit

Mechanical Data

- Case: JEDEC DO-214AA(SMB) molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.003 ounce, 0.093 gram

Maximum Ratings & Electrical Characteristics

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

| Ratings | Symbol | HSMB 320 | HSMB 330 | HSMB 340 | HSMB 350 | HSMB 360 | HSMB 380 | HSMB 3100 | Unit |
|--|-----------------|-------------|----------|----------|----------|----------|----------|-----------|---------------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | V |
| Surge Peak Reverse Voltage | V_{RSM} | 14 | 21 | 28 | 35 | 42 | 57 | 71 | V |
| DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | V |
| Average Forward Rectified Current ($T_A=75^\circ\text{C}$) | I_{FAV} | 3 | | | | | | | A |
| Peak Forward Surge Current, 50Hz Half Sine-wave ($T_A=25^\circ\text{C}$) | I_{FSM} | 80 | | | | | | | A |
| Repetitive Peak Forward C ($f>15\text{Hz}$) | I_{FRM} | 12 | | | | | | | A |
| Instantaneous Forward Voltage | V_F | 0.48 | 0.52 | 0.7 | | 0.8 | | V | |
| Leakage Current ($T_J=25^\circ\text{C}$, $V_R=V_{RRM}$) | I_R | 0.1 | | | | | | | mA |
| Leakage Current ($T_J=100^\circ\text{C}$, $V_R=V_{RRM}$) | | 2 | | | | | | | mA |
| Typical Junction Capacitance | C_J | 170 | | | | | | | pF |
| Rating for Fusing, $t<10\text{ms}$ ($T_A=25^\circ\text{C}$) | i^2t | 12.5 | | | | | | | A^2s |
| Thermal Resistance Junction to Ambient Air | $R_{\theta JA}$ | 50 | | | | | | | $^\circ\text{C}/\text{W}$ |
| Thermal Resistance Junction to Lead | $R_{\theta JL}$ | 15 | | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating Junction Temperature Range | T_J | -65 to +125 | | | | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -65 to +150 | | | | | | | $^\circ\text{C}$ |
| ESD Protection Voltage | V_{ESD} | >8 | | | | | | | KV |



DO-214AA(SMB)



DO-214AA(SMB) Dimension

2-Lead DO-214AA(SMB) Plastic
Surface Mounted Package
HSMC Package Code: SMB

Marking:

Product Series
 HSMB320: 32B
 HSMB330: 33B
 HSMB340: 34B
 HSMB350: 35B
 HSMB360: 36B
 HSMB380: 38B
 HSMB3100: 3AB

Cathode band

Note:
Green label is used for pb-free packing

| DIM | Min. | Max. |
|-----|------|------|
| A | 1.93 | 2.08 |
| B | 3.48 | 3.73 |
| C | 4.25 | 4.75 |
| D | 1.99 | 2.31 |
| E | 0.90 | 1.41 |
| F | 0.10 | 0.20 |
| G | 5.26 | 5.46 |
| H | 0.15 | 0.31 |

Unit: mm

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