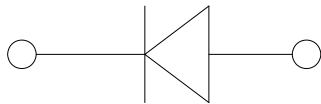
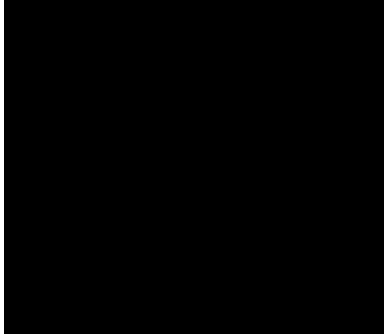


## Surface Mount High Efficient Rectifier



### Mechanical Data

**Package:** DO-214AA (SMB)

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free

**Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

**Polarity:** Cathode line denotes the cathode end

### Maximum Ratings ( $T_a=25$ Unless otherwise specified)

| PARAMETER   | SYMBOL    | UNIT | HS3QB      |
|---|-----------|------|------------|
| Device marking code   |           |      | HS3QB      |
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$ | V    | 1200       |
| Maximum RMS Voltage   | $V_{RMS}$ | V    | 840        |
| Maximum DC blocking Voltage   | $V_{DC}$  | V    | 1200       |
| Average rectified output current<br>@60Hz sine wave, Resistance load, TL (FIG.1)  | $I_O$     | A    | 3.0        |
| Forward Surge Current (Non-repetitive)<br>@60Hz Half-sine wave, 1 cycle, $T_j=25$ | $I_{FSM}$ | A    | 80         |
| Forward Surge Current (Non-repetitive)<br>@1ms, $\hat{e}$ Junction temperature    | $T_j$     |      | -55 ~ +150 |

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|



# HS3QB

## Electrical Characteristics $T_a=25$ Unless otherwise specified

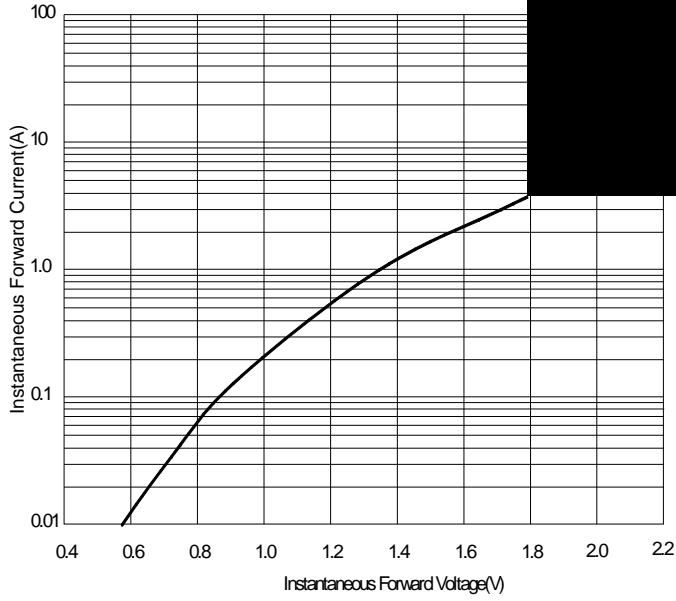
| PARAMETER   | SYMBOL   | UNIT    | TEST CONDITIONS   | HS3QB |
|---|----------|---------|---|-------|
| Maximum instantaneous forward voltage                   | $V_F$    | V       | $I_{FM}=3.0A$   | 2.4   |
| Maximum reverse recovery time                           | $t_{rr}$ | ns      | $I_F=0.5A, I_R=1.0A,$<br>$I_{rr}=0.25A$                   | 75    |
| Maximum DC reverse current at rated DC blocking voltage | $I_R$    | $\mu A$ | $T_j = 25$  | 5     |
|   |          |         | $T_j = 125$   | 100   |
| Typical junction capacitance                            | $C_j$    | pF      | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | 23    |

## Thermal Characteristics $T_a=25$ Unless otherwise specified

| PARAMETER | SYMBOL | UNIT | HS3QB |
|-----------|--------|------|-------|
|-----------|--------|------|-------|



FIG.3: Forward characteristics



### Ordering Information (Example)

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g)    | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| HS3QB         | F1           | Approximate 0.096 | 3000                 | /                       | 48000                      | 13" reel      |
| HS3QB         | F2           | Approximate 0.096 | 750                  | 6000                    | 24000                      | 7" reel       |
| HS3QB         | F3           | Approximate 0.096 | 500                  | 4000                    | 16000                      | 7" reel       |



## Outline Dimensions

| DO-214AA(SMB) |      |      |
|---------------|------|------|
| Dim           | Min  | Max  |
| A             | 1.85 | 2.15 |
| B             | 3.30 | 3.94 |
| C             | 4.05 | 4.75 |
| D             | 1.99 | 2.61 |
| E             | 5.21 | 5.59 |
| F             | 0.90 | 1.41 |
| G             | 0.05 | 0.20 |
| H             | 0.15 | 0.31 |

## Suggested Pad Layout

| DO-214AA (SMB) |             |
|----------------|-------------|
| Dim            | Millimeters |
| P1             | 6.8         |
| P2             | 4.3         |
| P3             | 1.8         |
| Q1             | 2.5         |
| Q2             | 2.3         |

Dimensions in millimeters



## Disclaimer

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