

# SBD MODULE 60A/40V

# PE60Q04N

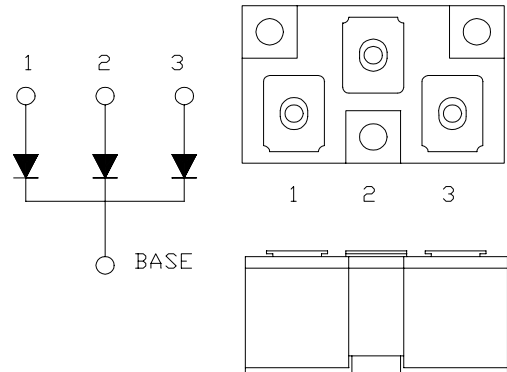
## OUTLINE DRAWING

### FEATURES

- \* Three-Arms, Cathode Common to Base Plate
- \* Low Forward Voltage Drop
- \* Low Power Loss, High Efficiency
- \* High Surge Capability
- \* UL Recognized, File No. E187184

### TYPICAL APPLICATIONS

- \* High Frequency Rectification



### Maximum Ratings

Approx Net Weight:65g

| Voltage Rating                        | Symbol       | PE60Q04N  |             | Unit             |
|---------------------------------------|--------------|---|-------------|------------------|
| Repetitive Peak Reverse Voltage       | $V_{RRM}$    | 40  |             | V                |
| Repetitive Peak Surge Reverse Voltage | $V_{RRSM}$   | 45 (Pulse Width $\leq 1 \mu\text{sec}$ , Duty $\leq 1/50$ ) |             | V                |
| Electrical Rating                     |              | Condition   | Rating      |                  |
| Average Rectified Output Current      | $I_o$        | 50Hz Half Sine Wave per Arm, $T_c=87^\circ\text{C}$         | 60          | A                |
| RMS Forward Current                   | $I_{F(RMS)}$ | Per Arm   | 94          | A                |
| Surge Forward Current                 | $I_{FSM}$    | 50 Hz Half Sine Wave, 1 cycle Non-repetitive, per Arm       | 800         | A                |
| Operating Junction Temperature Range  | $T_{jw}$     |   | -40 to +125 | $^\circ\text{C}$ |
| Storage Temperature Range             | $T_{stg}$    |   | -40 to +125 | $^\circ\text{C}$ |
| Mounting torque                       | $F_{tor}$    | Case mounting(recommended)                                  | 1.45        | N.m              |
|                                       |              | Terminal Screw(recommended)                                 | 1.45        |                  |

### Electrical • Thermal Characteristics

| Characteristics      | Symbol        | Test Conditions   | Max. | Unit               |
|----------------------|---------------|---|------|--------------------|
| Peak Forward Voltage | $V_{FM}$      | $I_{FM}= 60\text{A}$ , $T_j=25^\circ\text{C}$ , per Arm | 0.58 | V                  |
| Peak Reverse Current | $I_{RM}$      | $V_{RM}= V_{RRM}$ , $T_j= 25^\circ\text{C}$ , per Arm   | 40   | mA                 |
| Thermal Resistance   | $R_{th(j-c)}$ | Junction to Case, per Arm                               | 0.74 | $^\circ\text{C/W}$ |
|                      | $R_{th(c-f)}$ | Base Plate to Heat Sink with Thermal Compound           | 0.12 |                    |

We recommend the use of the electrical conductive grease.

In case of parallel use, consider in balance of the current of each arms.

PE60Q04N OUTLINE DRAWING (Dimensions in mm)

