

# SBD MODULE 80A/40V

# PE80Q04N

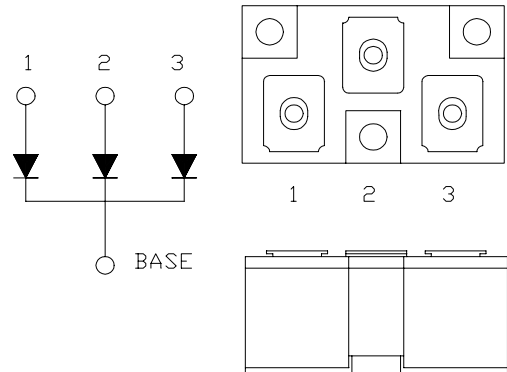
## OUTLINE DRAWING

### 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	PE80Q04N		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, $T_c=96^\circ\text{C}$	80	A
RMS Forward Current	$I_{F(RMS)}$	Per Arm	125	A
Surge Forward Current	$I_{FSM}$	50 Hz Half Sine Wave, 1 cycle Non-repetitive, per Arm	1600	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	$V_{FM}$	$I_{FM}= 80\text{A}$ , $T_j=25^\circ\text{C}$ , per Arm	0.52	V
Peak Reverse Current	$I_{RM}$	$V_{RM}= V_{RRM}$ , $T_j= 25^\circ\text{C}$ , per Arm	80	mA
Thermal Resistance	$R_{th(j-c)}$	Junction to Case, per Arm	0.46	$^\circ\text{C/W}$
	$R_{th(c-f)}$	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.

PE80Q04N OUTLINE DRAWING (Dimensions in mm)

