

SBD MODULE 80A/40V

PE80Q04N

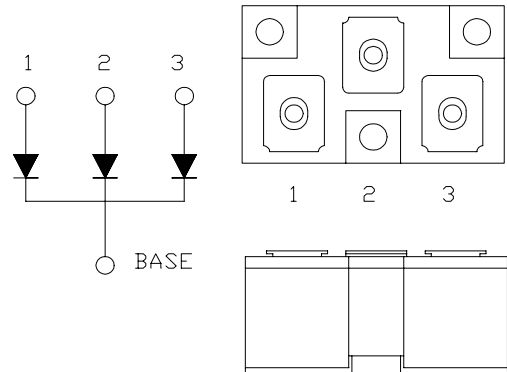
OUTLINE DRAWING

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)

