

*Torex...Powerfully Small!*

**850V/10A SiC Schottky Barrier Diode**  
**XBSC11A108CS Product Overview**

May 2024  
TOREX Semiconductor  
Rev. 1.0

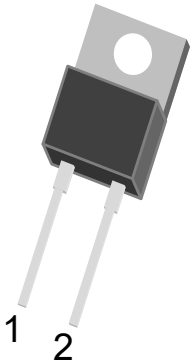
SiC 850V / Fast switching operation / Low recovery loss

### ■ Features

- Repetitive Peak Reverse Voltage : 850V
- Reverse Voltage : 850V
- Forward Current (Average) : 10A
- Forward Voltage : 1.5V
- Non Continuous Forward Surge Current : 36A  
@Pulse Width=10ms, Tj=25°C
- Reverse Current (V<sub>R</sub>=650V, Tj=25°C) : 2μA
- Package : TO-220AC
- Junction Temperature : 175°C

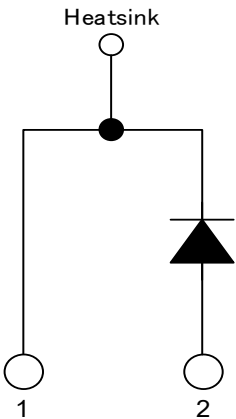
### ■ Package

TO-220AC



1 : Cathode  
2 : Anode

### ■ EQUIVALENT CIRCUIT



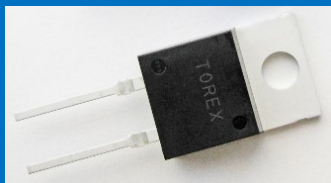
### ■ PRODUCT NAME

| PRODUCT NAME | PACKAGE  | ORDER UNIT          |
|--------------|----------|---------------------|
| XBSC11A108CS | TO-220AC | 1,000 pcs/ 20 Tubes |

- SiC Schottky Barrier Diode suitable for PFC circuits and various power supplies

850V 10A SiC  
Schottky Barrier Diode

XBSC11A108CS

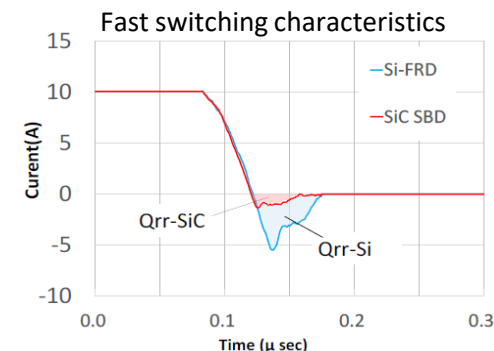


Low switching  
loss

①

## ① high speed switching operation

- ✓ High speed switching operation by SiC
- ✓ Low Qrr (reverse recovery charge)
- ✓ Significantly lower recovery loss in reverse recovery operation compared to Si-FRD
- ✓ Contributes to higher efficiency and smaller size of power circuit



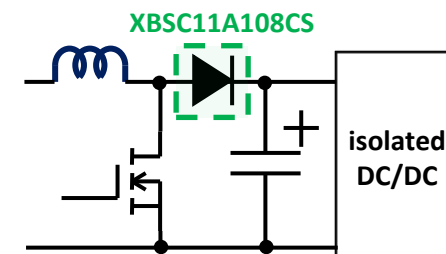
②

## ② 850V Rated voltage

- ✓ Rated voltage 850V with more margin than general 650V products
- ✓ Ideal for replacing 900V type FRD

850V operation  
with plenty of  
margin

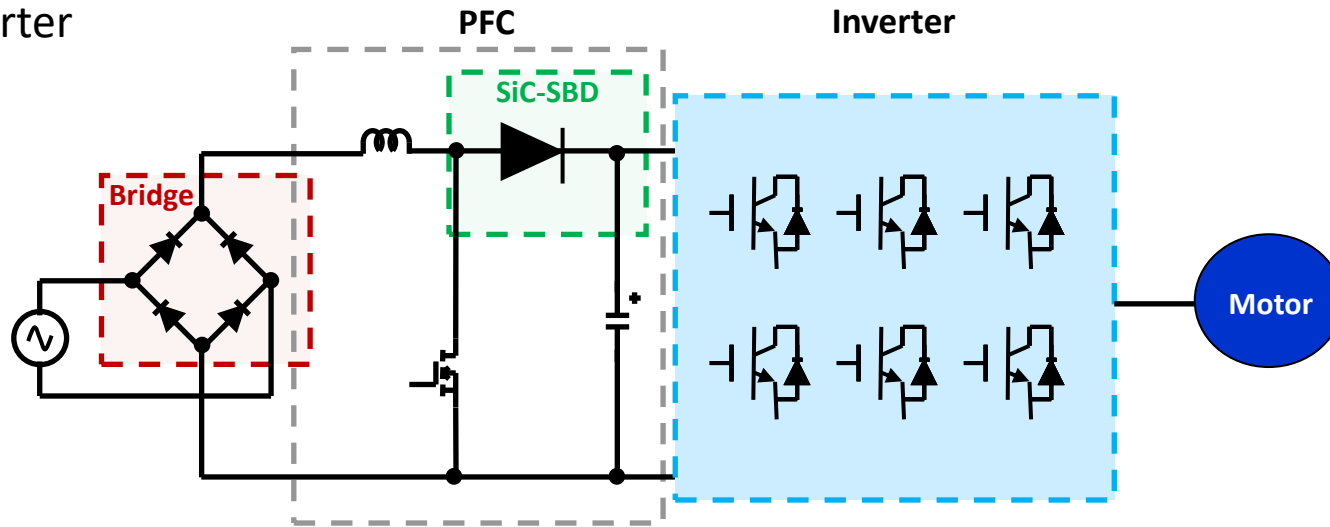
PFC Circuit



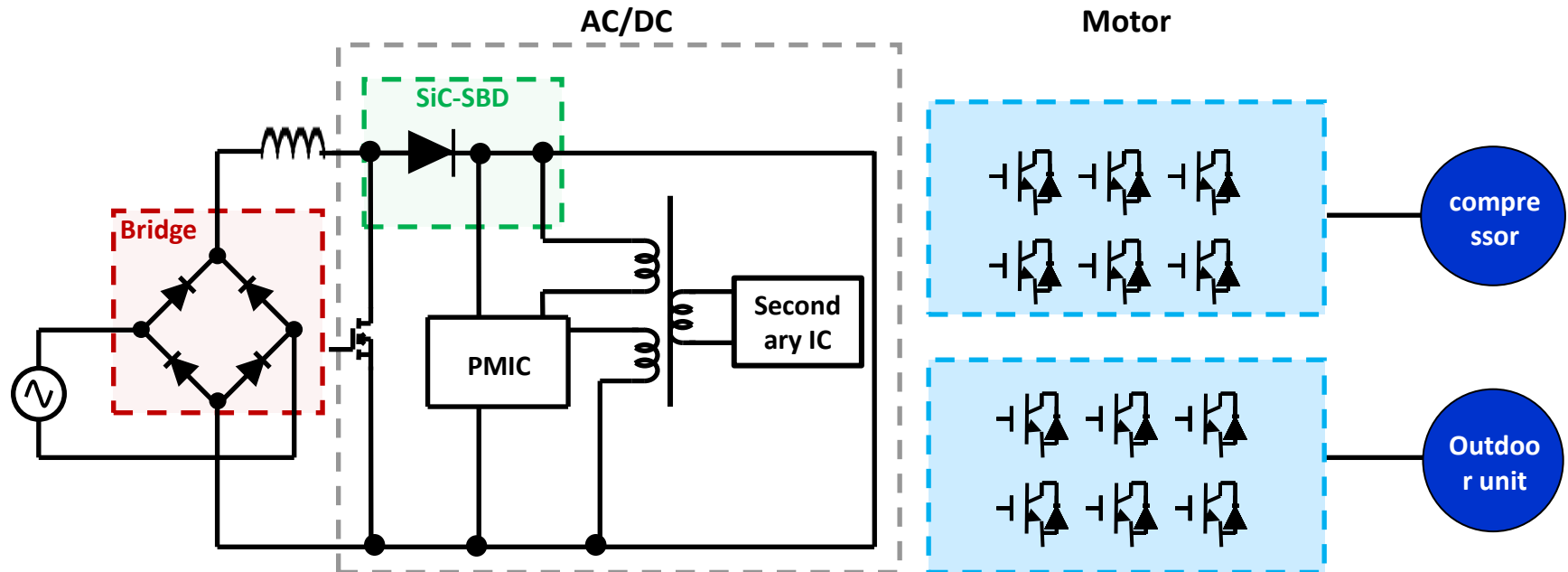
**High-speed, low-loss switching makes it ideal for miniaturization and heat generation solutions.**

- PFC circuits, Various power supply circuits
- General-purpose inverters, Switching power supplies, Uninterruptible power supplies, Solar power conditioners, EV/EHV chargers, etc.

## General Inverter

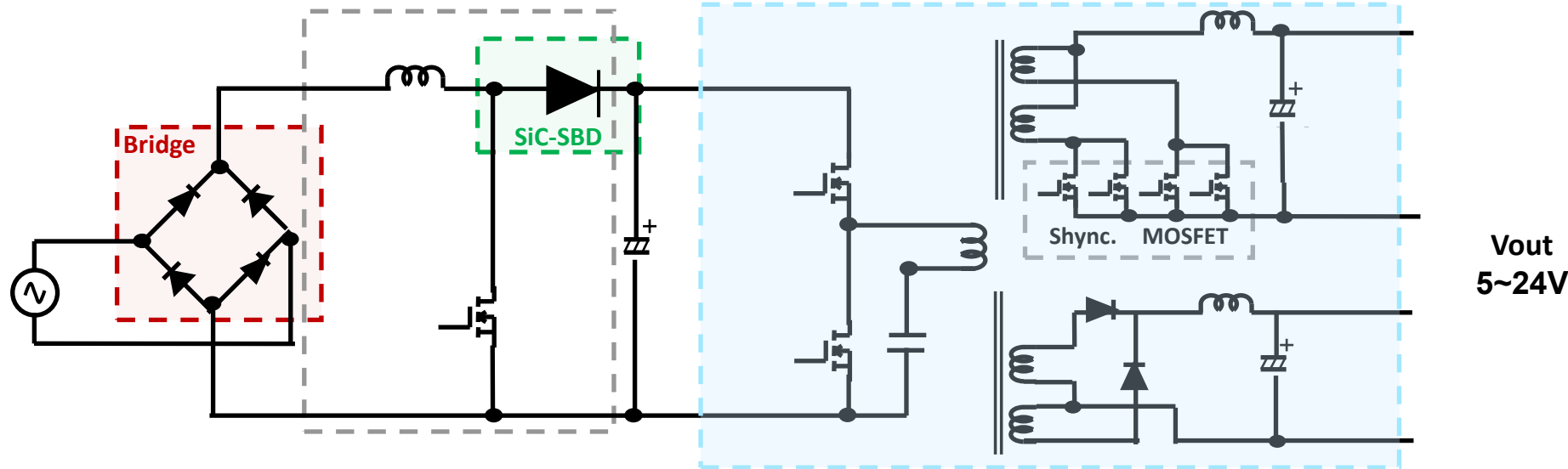


## Air conditioner



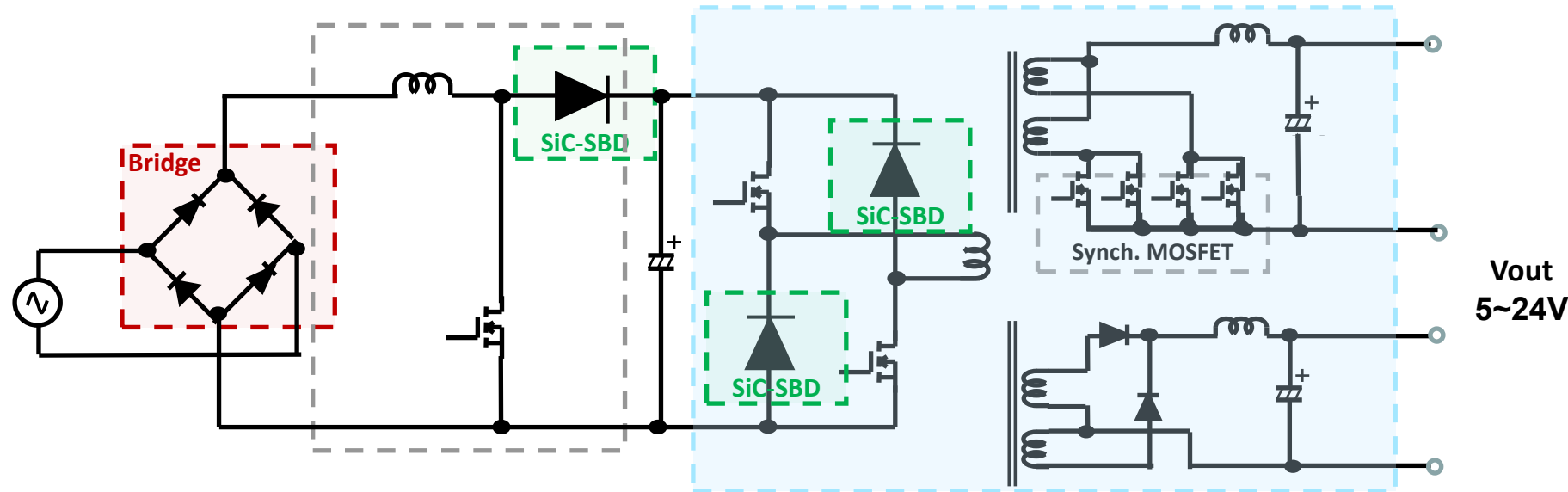
■ Switching power supply PFC

Full-wave LC resonant converter



PFC

Two-switch forward converter



## ■ Quick Charging System for EVs

