

# SHINDENGEN

## General Purpose Rectifiers

SIL Bridges

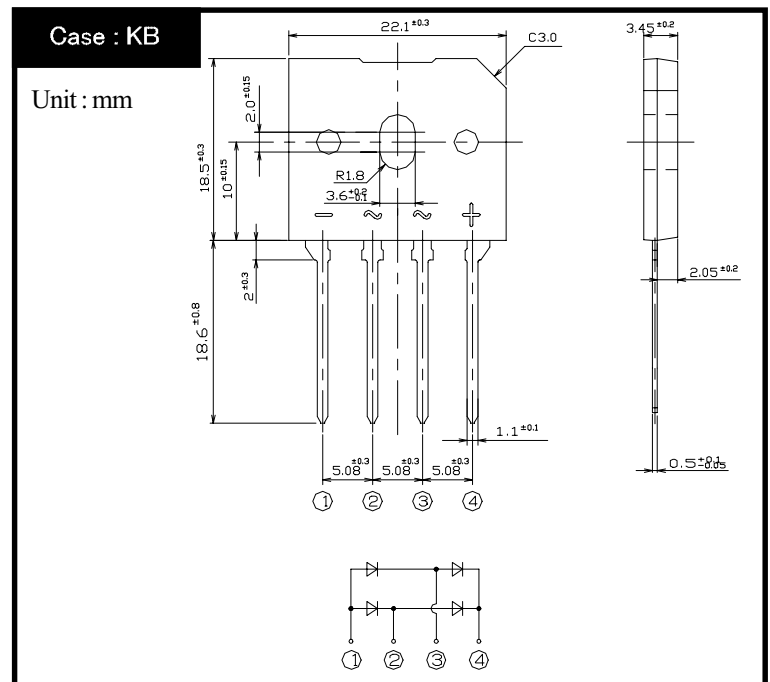
# U4KB80R

## 800V 4A

### APPLICATION

- Monitor
- TV
- Audio equipment
- Printer
- SMPS
- Adapter for notebook PC
- Power supply for desktop PC

### OUTLINE DIMENSIONS



### RATINGS

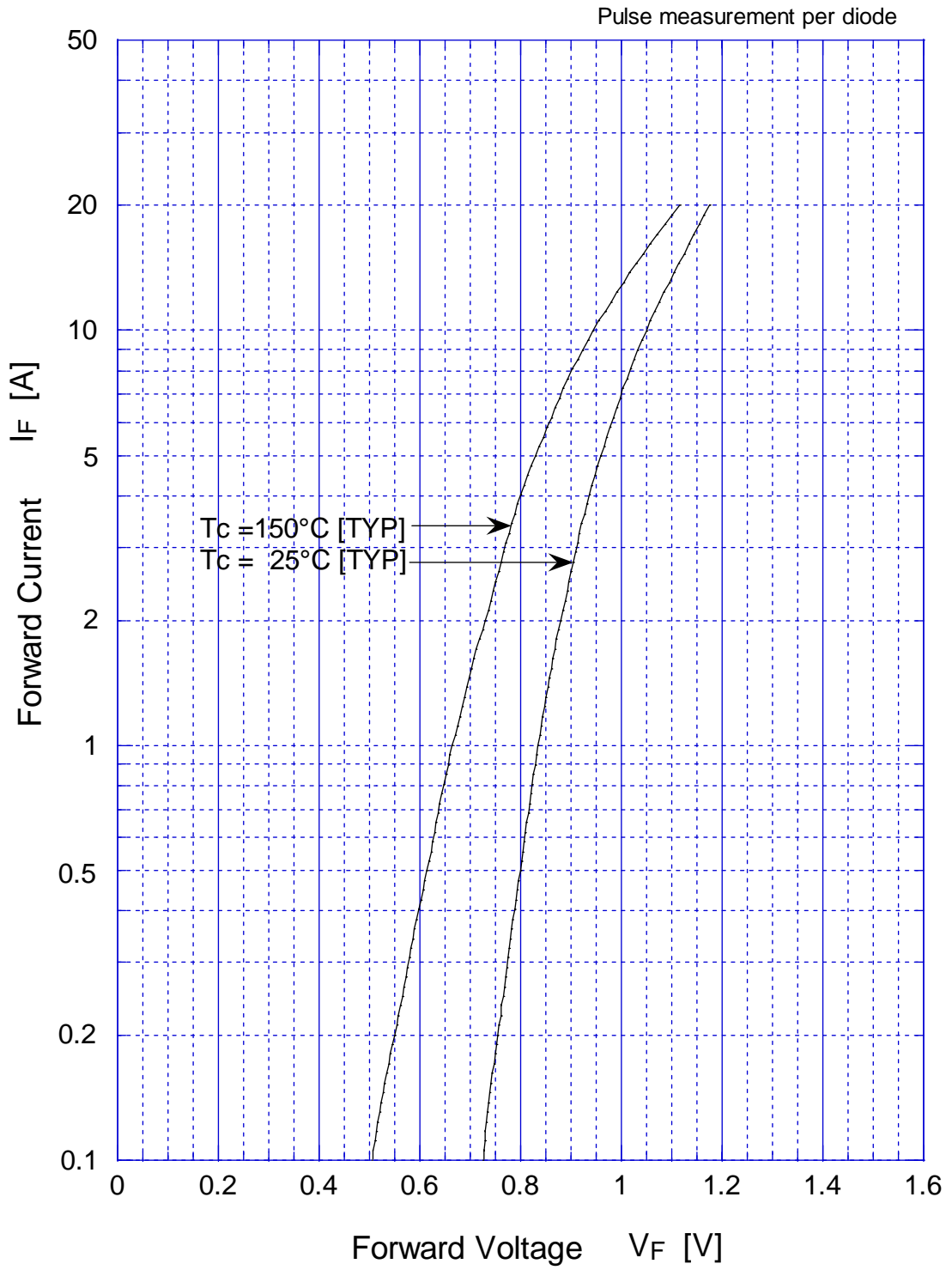
Absolute Maximum Ratings (If not specified, Tc=25°C)

| Item                              | Symbol           | Conditions                                                | Ratings    | Unit             |
|-----------------------------------|------------------|-----------------------------------------------------------|------------|------------------|
| Storage Temperature               | Tstg             |                                                           | -55 to 150 | °C               |
| Operating Junction Temperature    | Tj               |                                                           | 150        | °C               |
| Maximum Reverse Voltage           | V <sub>RM</sub>  |                                                           | 800        | V                |
| Average Rectified Forward Current | I <sub>O</sub>   | 50Hz sine wave, R-load, On glass-epoxy substrate Ta=25°C  | 3.15       | A                |
|                                   |                  | 50Hz sine wave, R-load Tc=111°C                           | 4.0        |                  |
| Peak Surge Forward Current        | I <sub>FSM</sub> | 60Hz sine wave, Non-repetitive 1cycle peak value, Tj=25°C | 150        | A                |
| Current Squared Time              | I <sup>2</sup> t | 1ms ≤ t < 10ms Tj=25°C, Rating of per diode               | 50         | A <sup>2</sup> s |
| Dielectric Strength               | Vdis             | Terminals to case, AC 1 minute                            | 2.0        | kV               |
| Mounting Torque                   | TOR              | (Recommended torque: 0.5N·m)                              | 0.8        | N·m              |

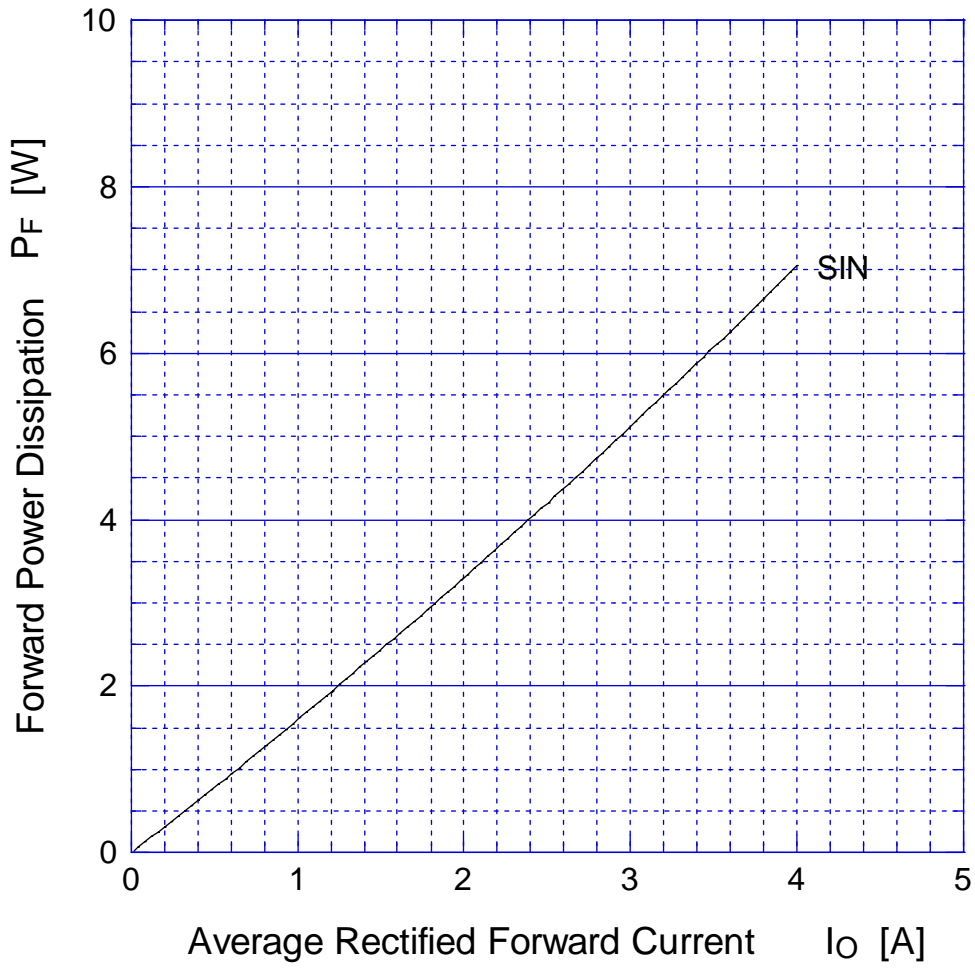
Electrical Characteristics (If not specified, Tc=25°C)

| Item               | Symbol          | Conditions                                                   | Ratings | Unit |
|--------------------|-----------------|--------------------------------------------------------------|---------|------|
| Forward Voltage    | V <sub>F</sub>  | I <sub>F</sub> =4A, Pulse measurement, Rating of per diode   | Max 1.0 | V    |
| Reverse Current    | I <sub>R</sub>  | V <sub>R</sub> =800V, Pulse measurement, Rating of per diode | Max 10  | μA   |
| Thermal Resistance | θ <sub>jl</sub> | junction to lead, On glass-epoxy substrate                   | Max 4.2 | °C/W |
|                    | θ <sub>ja</sub> | junction to ambient, On glass-epoxy substrate                | Max 23  |      |
|                    | θ <sub>jc</sub> | junction to case                                             | Max 5.5 |      |

# U4KB80R Forward Voltage



# U4KB80R Forward Power Dissipation

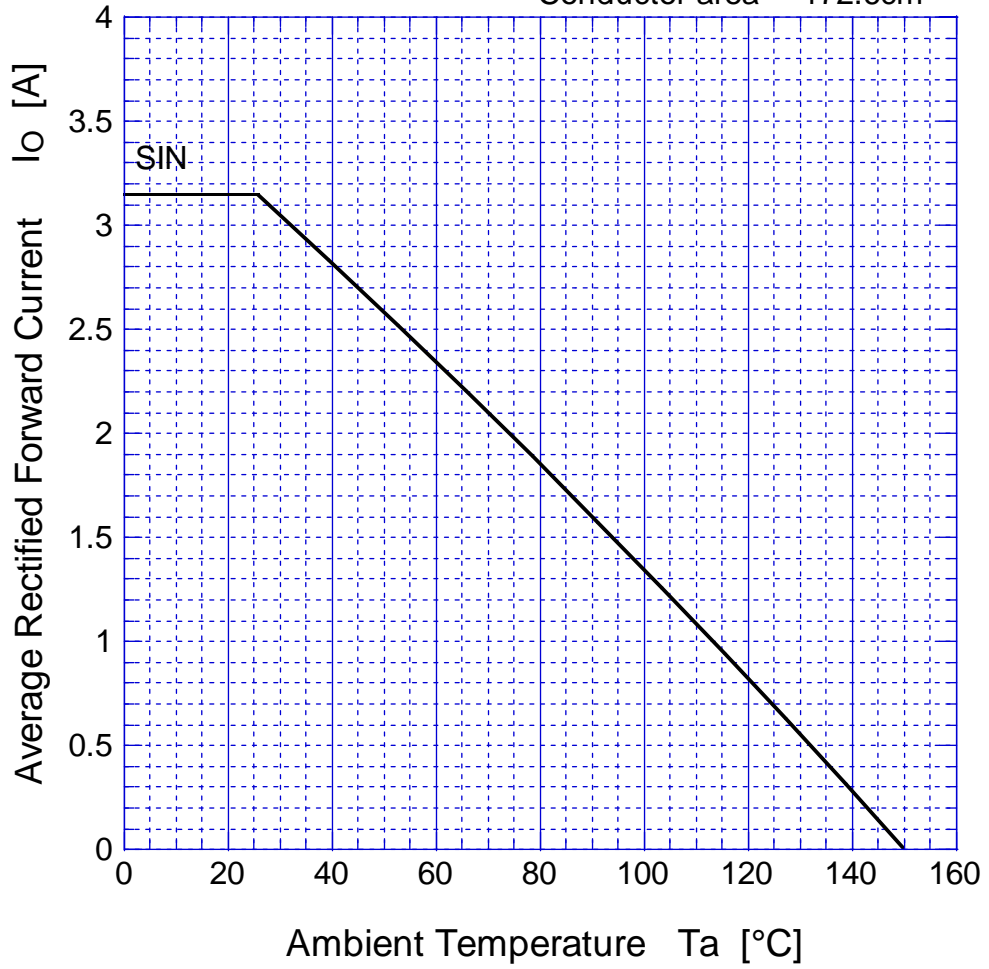


$T_j = 150^\circ\text{C}$

U4KB80R

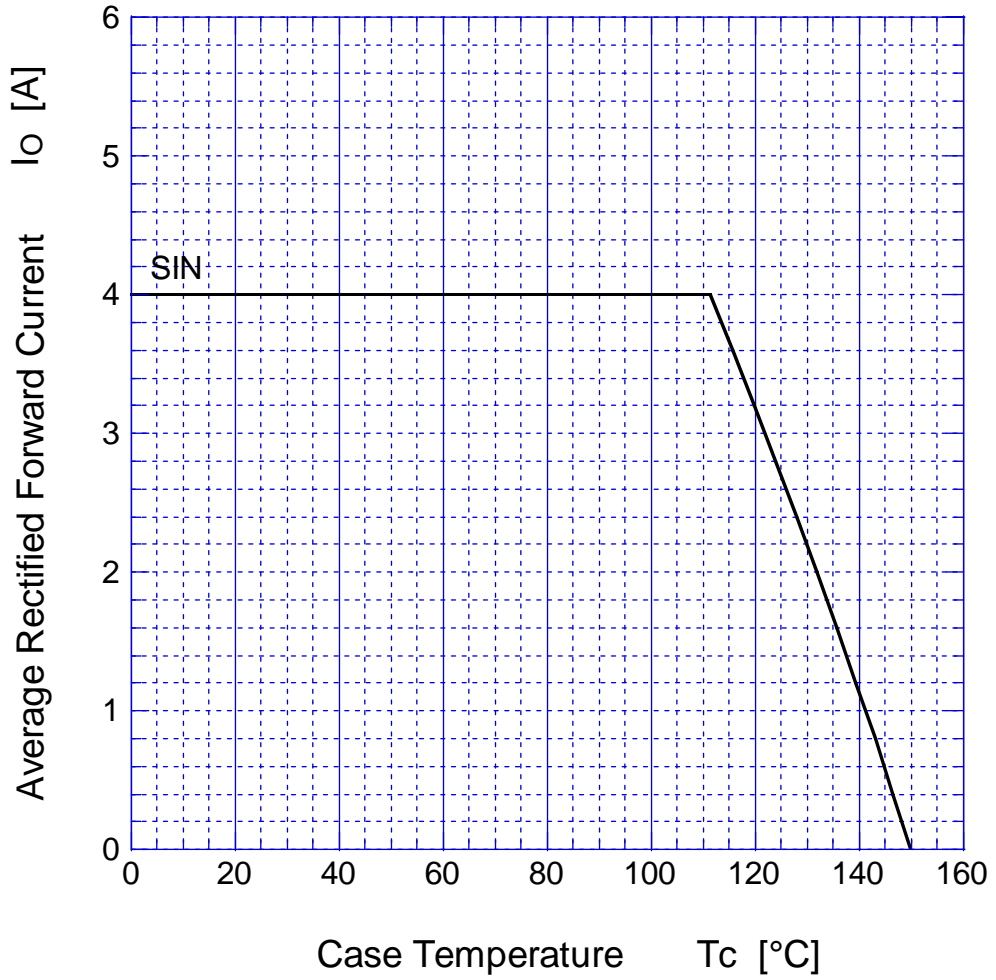
Derating Curve

Conductor area 172.6cm<sup>2</sup>



U4KB80R

Derating Curve



# U4KB80R Peak Surge Forward Capability

