

SHINDENGEN

3 Phase Bridge Diode

Diode Module

S30VTA160

1600V 30A

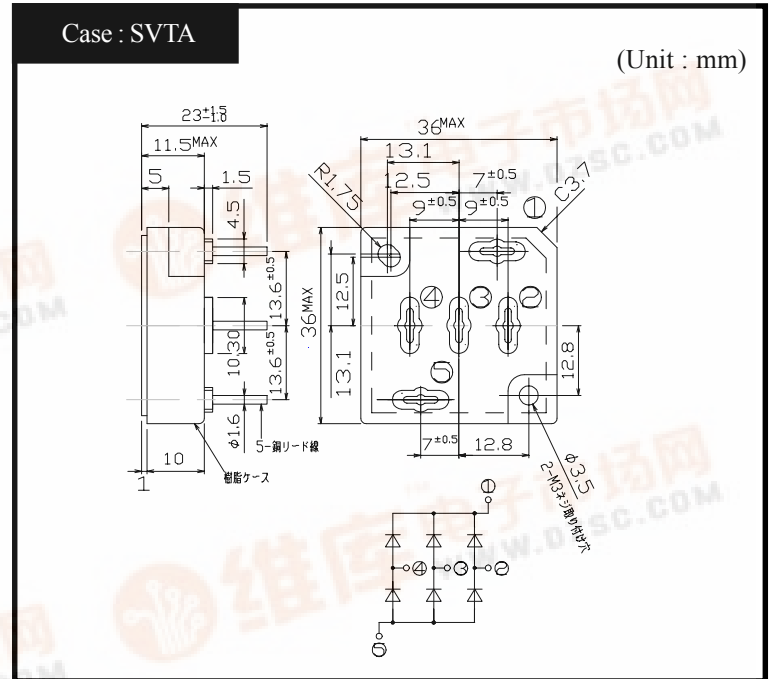
FEATURES

- Dual In-Line Package
- Compact 3 phase bridge
- High IFSM
- Applicable to mount on glass-epoxy substrate

APPLICATION

- Big Power Supply
- Air conditioner
- Factory Automation, Inverter

OUTLINE DIMENSIONS



RATINGS

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

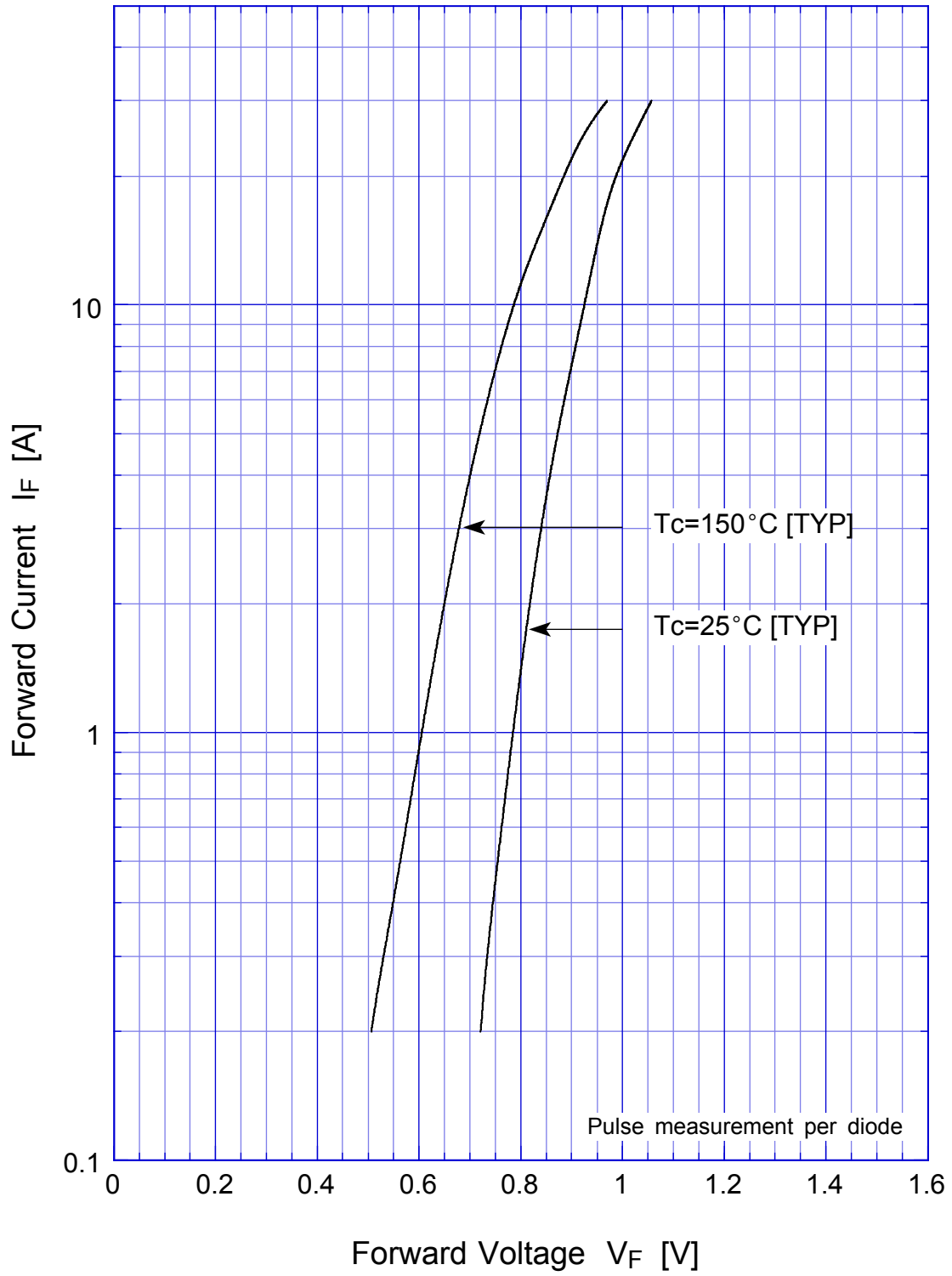
| Item | Symbol | Conditions | Ratings | Unit |
|-----------------------------------|------------------|---|---------|------------------|
| Storage Temperature | Tstg | | -40~150 | °C |
| Operating Junction Temperature | Tj | | 150 | °C |
| Maximum Reverse Voltage | V _{RM} | | 1600 | V |
| Average Rectified Forward Current | I _O | 50Hz sine wave, R-load With heatsink Tc=116°C | 30 | A |
| Peak Surge Forward Current | I _{FSM} | 50Hz sine wave, Non-repetitive 1cycle peak value, Rating of per diode Tj=25°C | 350 | A |
| Current Squared Time | I ² t | 1ms ≤ t < 10ms Tc=25°C | 200 | A ² s |
| Dielectric Strength | V _{dis} | Terminals to case, AC 1 minute | 2 | kV |
| Mounting Torque | TOR | (Recommended torque : 0.6N·m) | 0.8 | N·m |

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

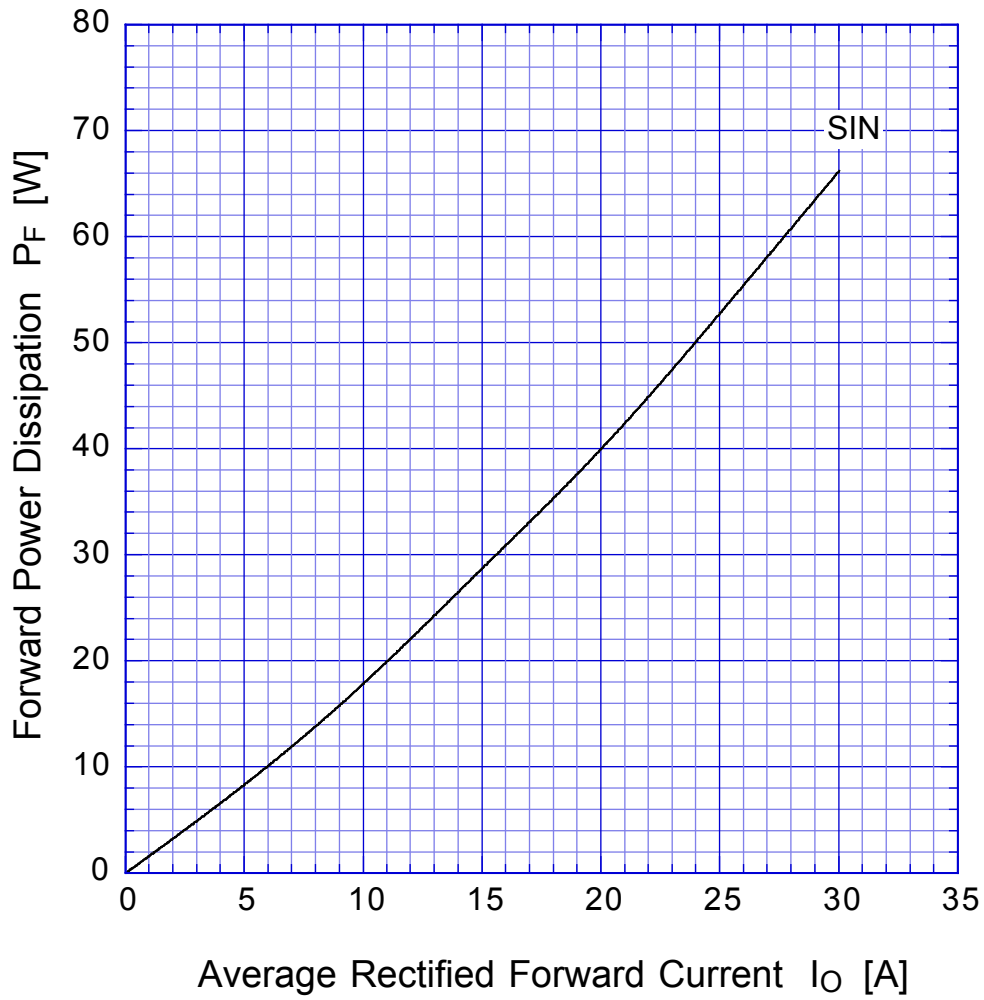
| Item | Symbol | Conditions | Ratings | Unit |
|--------------------|-----------------|--|----------|------|
| Forward Voltage | V _F | I _F =10A, Pulse measurement, Rating of per diode | Max.1.05 | V |
| Reverse Current | I _R | V _R =V _{RM} , Pulse measurement, Rating of per diode | Max.100 | μA |
| Thermal Resistance | θ _{jc} | junction to case | Max.0.5 | °C/W |



S30VTA160 Forward Voltage



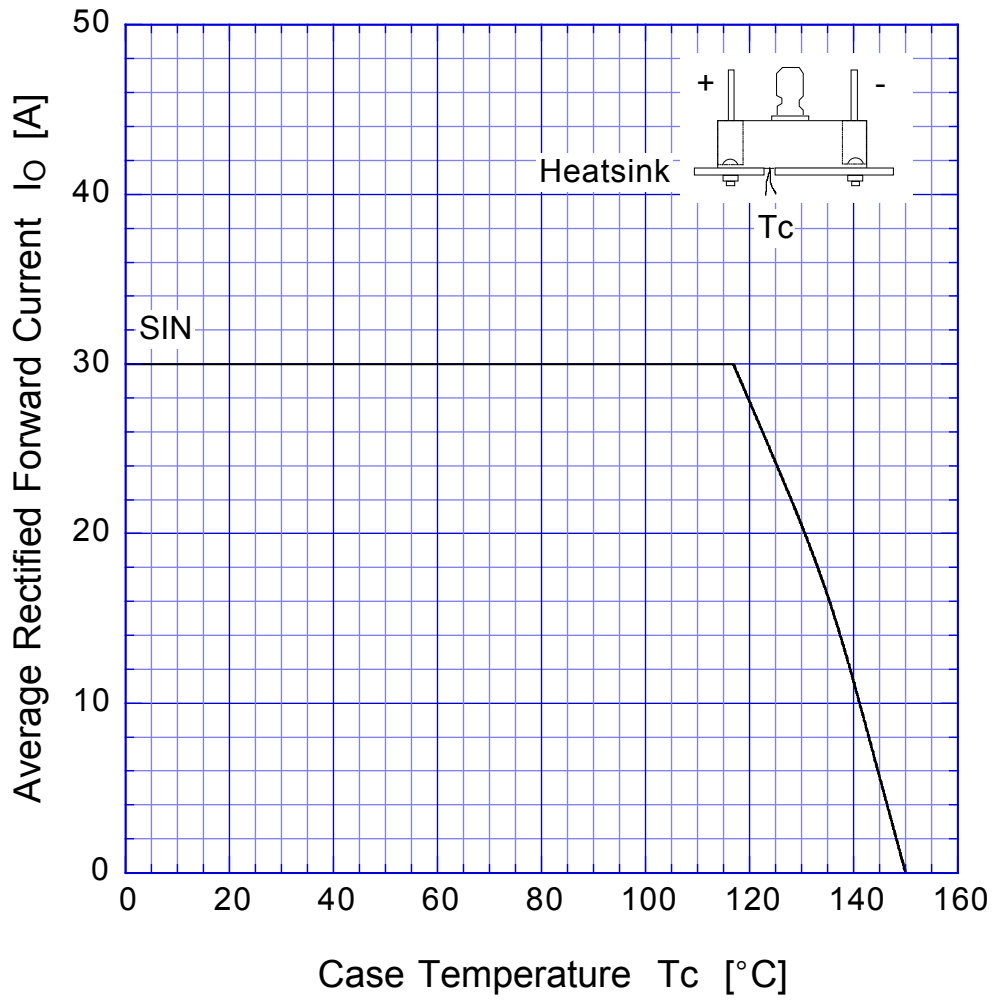
S30VTA160 Forward Power Dissipation



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

S30VTA160

Derating Curve



S30VTA160 Peak Surge Forward Capability

