

S20VT60

600V 20A

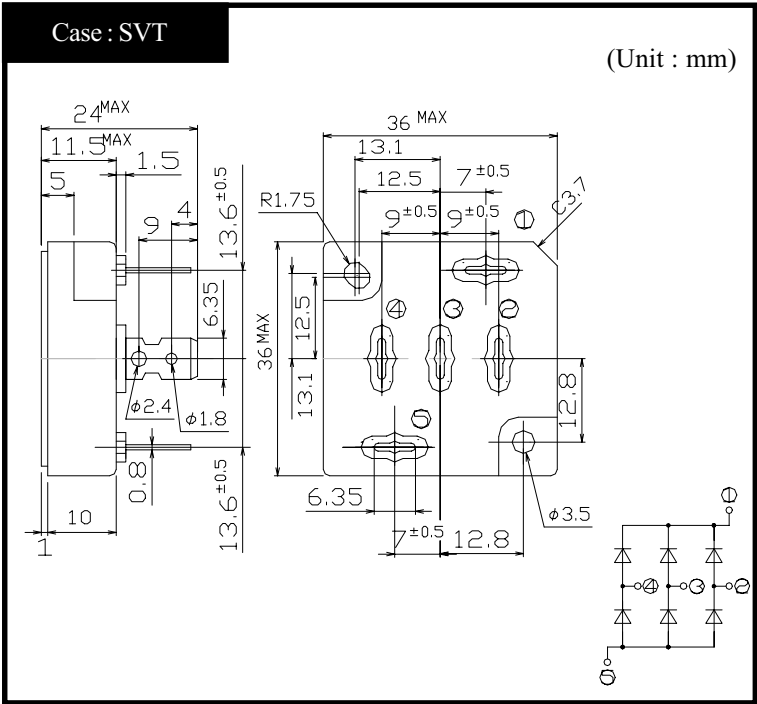
FEATURES

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

APPLICATION

- Big power supply
- Air conditioner
- Factory automation, Inverter

OUTLINE DIMENSIONS



RATINGS

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

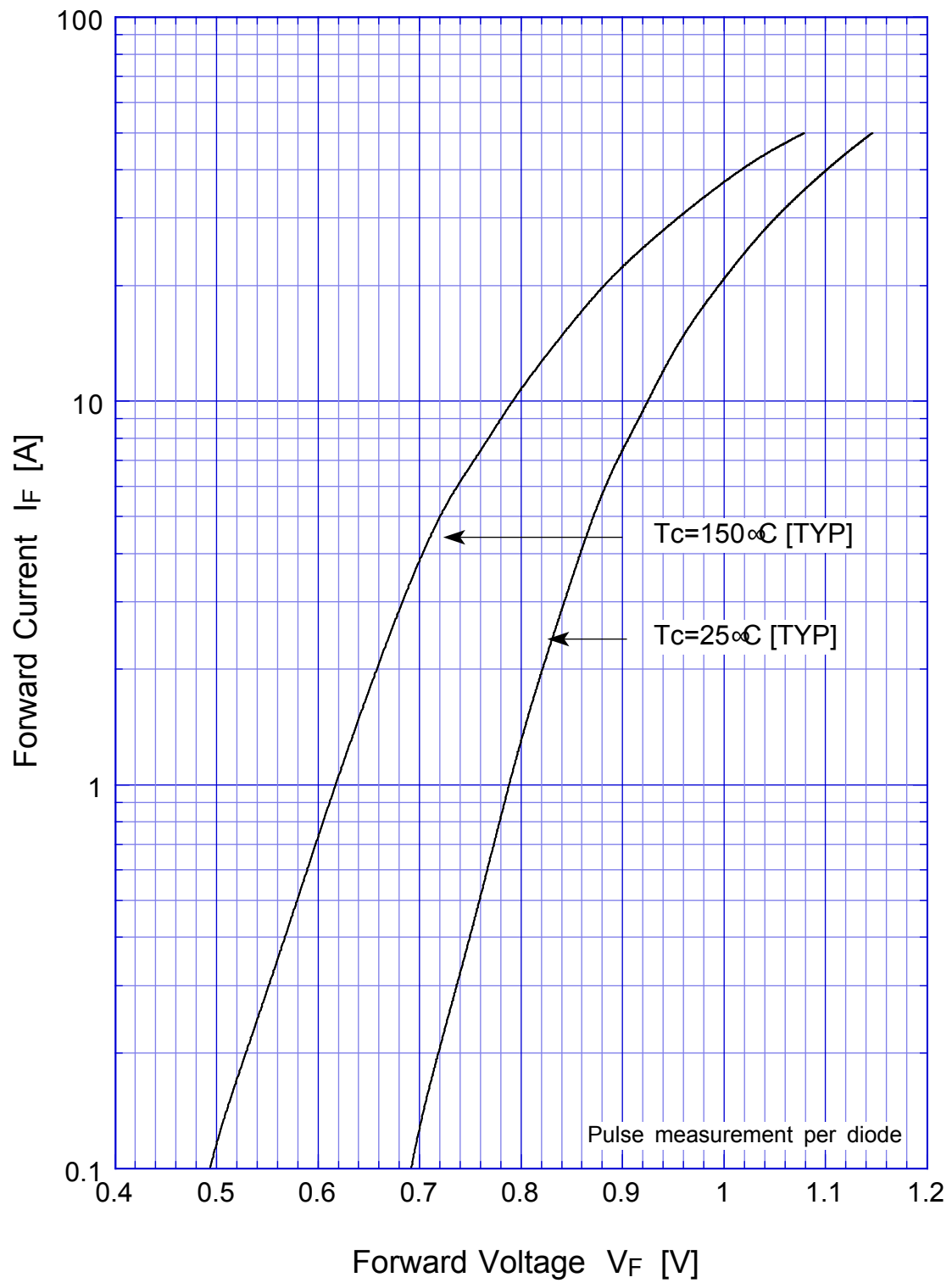
| Item                              | Symbol           | Conditions                                                                   | Ratings | Unit             |
|-----------------------------------|------------------|------------------------------------------------------------------------------|---------|------------------|
| Storage Temperature               | Tstg             |                                                                              | -40~150 | °C               |
| Operating Junction Temperature    | Tj               |                                                                              | 150     | °C               |
| Maximum Reverse Voltage           | V <sub>RM</sub>  |                                                                              | 600     | V                |
| Average Rectified Forward Current | I <sub>O</sub>   | 50Hz sine wave, R-load, With heatsink, Tc=128°C                              | 20      | A                |
| Peak Surge Forward Current        | I <sub>FSM</sub> | 50Hz sine wave, Non-repetitive 1cycle peak value, Rating of per arm, Tj=25°C | 300     | A                |
| Current Squared Time              | I <sup>2</sup> t | 1ms ≤ t < 10ms Tj=25°C                                                       | 300     | A <sup>2</sup> s |
| Dielectric Strength               | Vdis             | 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 <sub>F</sub>  | IF=7A, Pulse measurement, Rating of per arm                            | Max.1.05 | V    |
| Reverse Current    | I <sub>R</sub>  | V <sub>R</sub> =V <sub>RM</sub> , Pulse measurement, Rating of per arm | Max.10   | μA   |
| Thermal Resistance | θ <sub>jc</sub> | junction to case                                                       | Max.0.55 | °C/W |

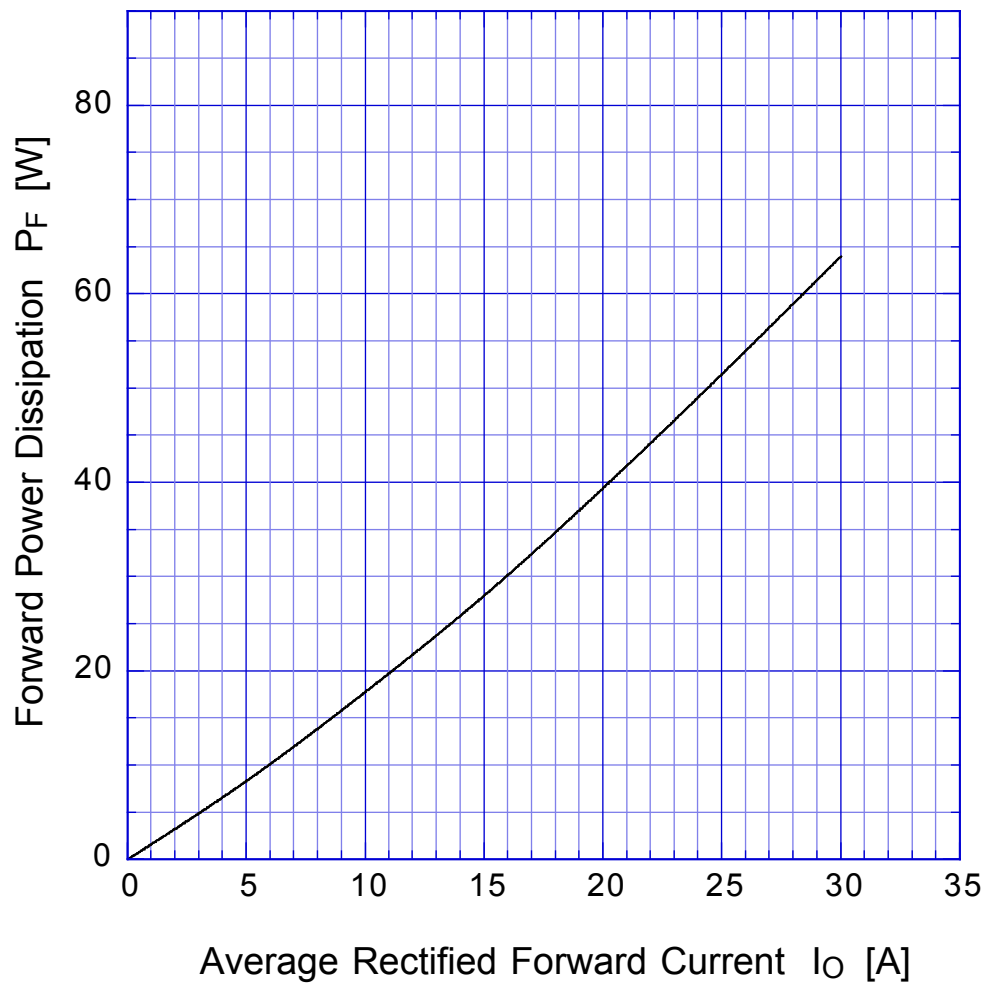
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Forward Voltage



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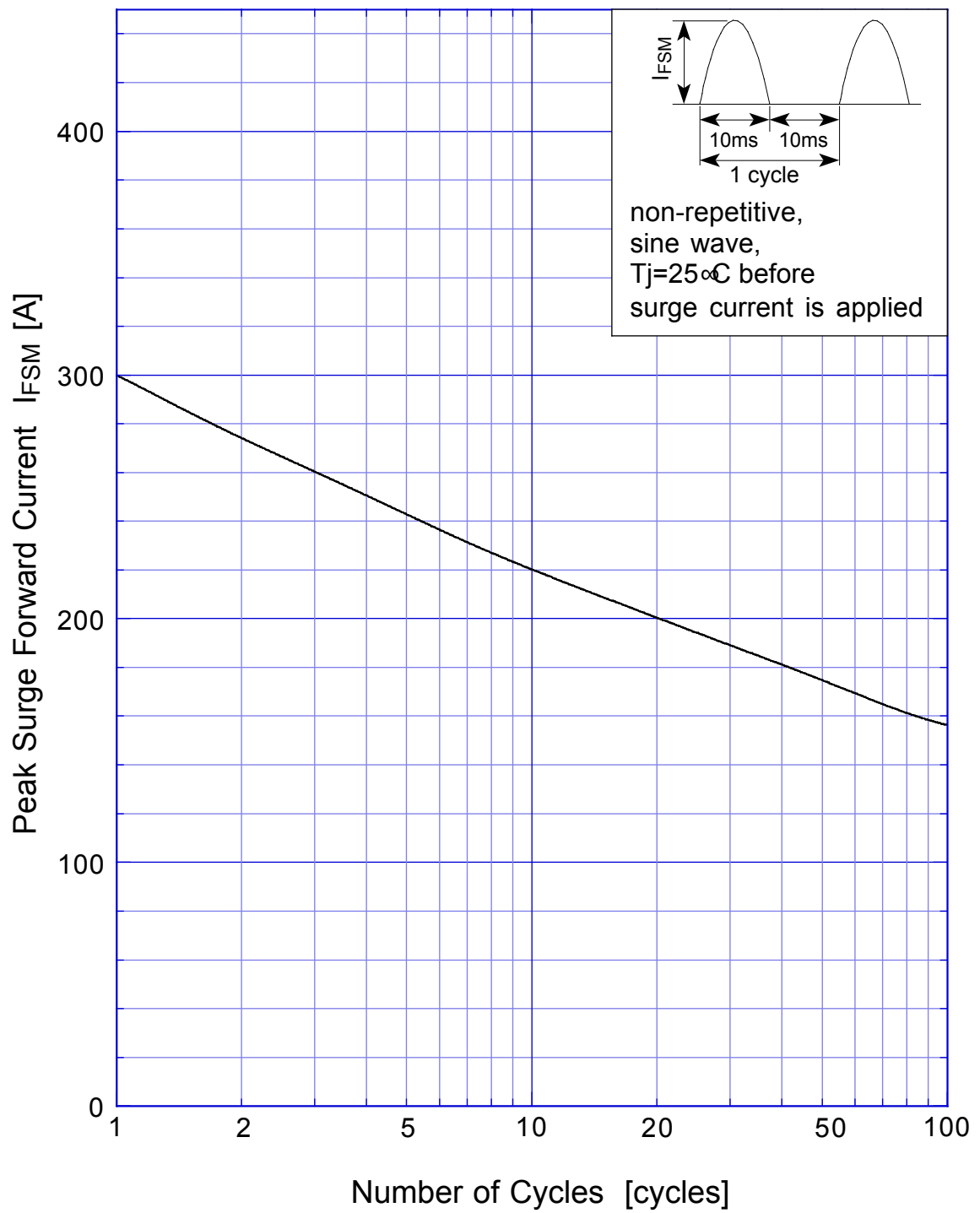
Forward Power Dissipation



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

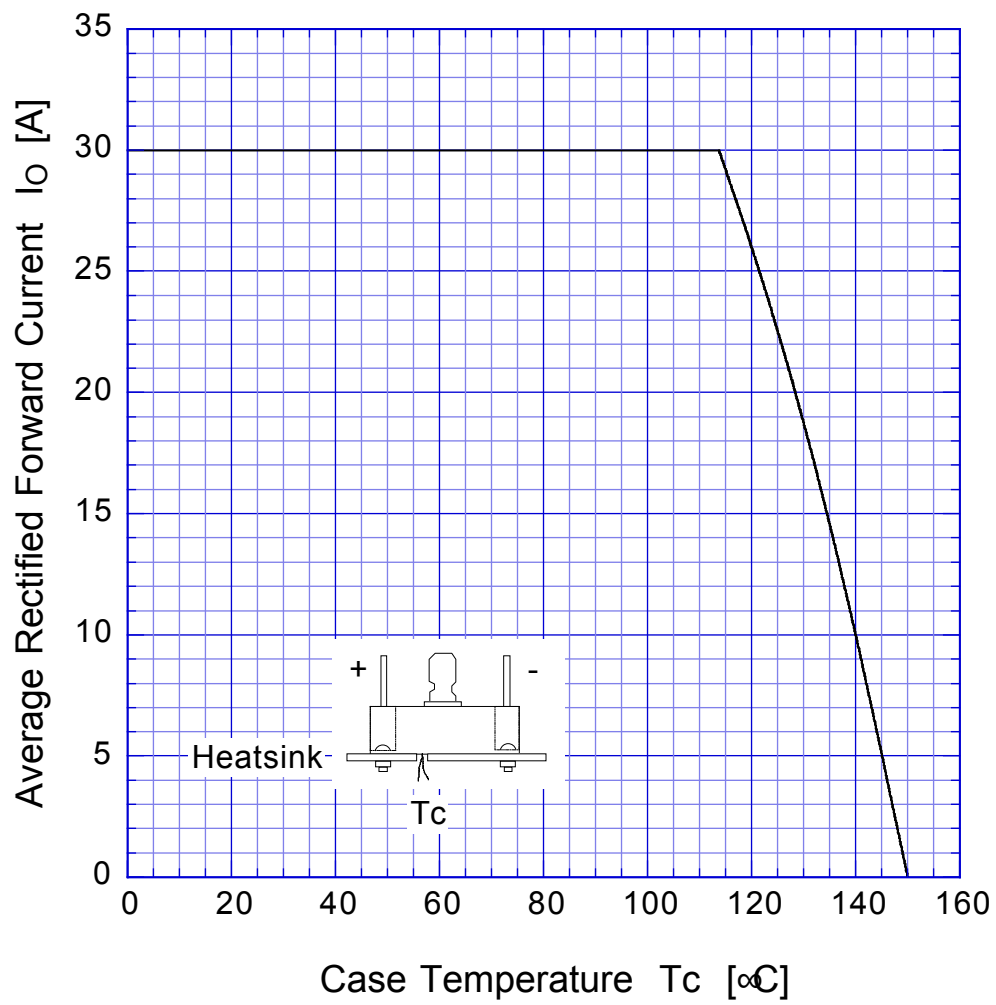
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## Peak Surge Forward Capability



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Derating Curve



Sine wave  
R-load  
with heatsink