

SF30SC6

60V 30A

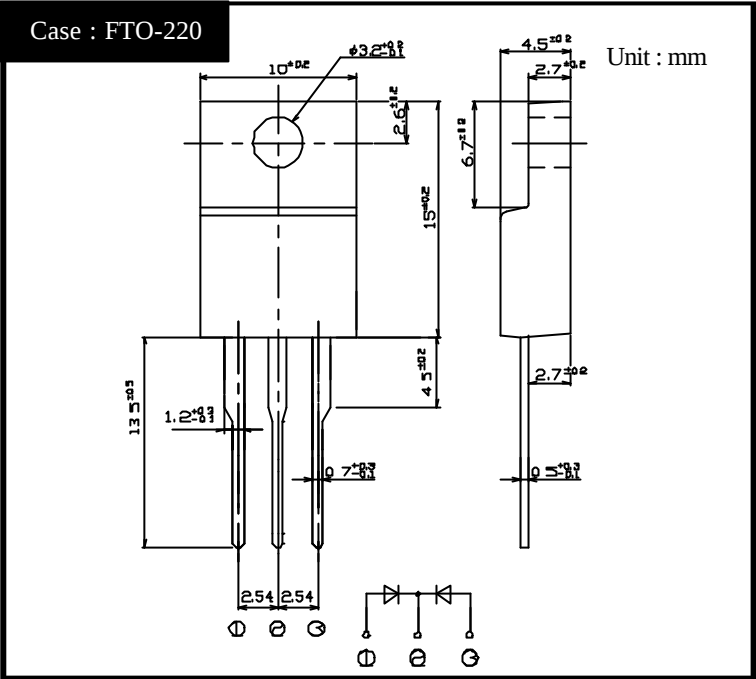
FEATURES

- Tj150
- PRRSM avalanche guaranteed
- Fully Isolated Molding
- Dielectric strength 2kV guaranteed

APPLICATION

- Switching power supply
- DC/DC converter
- Home Appliances, Office Equipment
- Telecommunication

OUTLINE DIMENSIONS



RATINGS

• Absolute Maximum Ratings (If not specified Tc=25 )

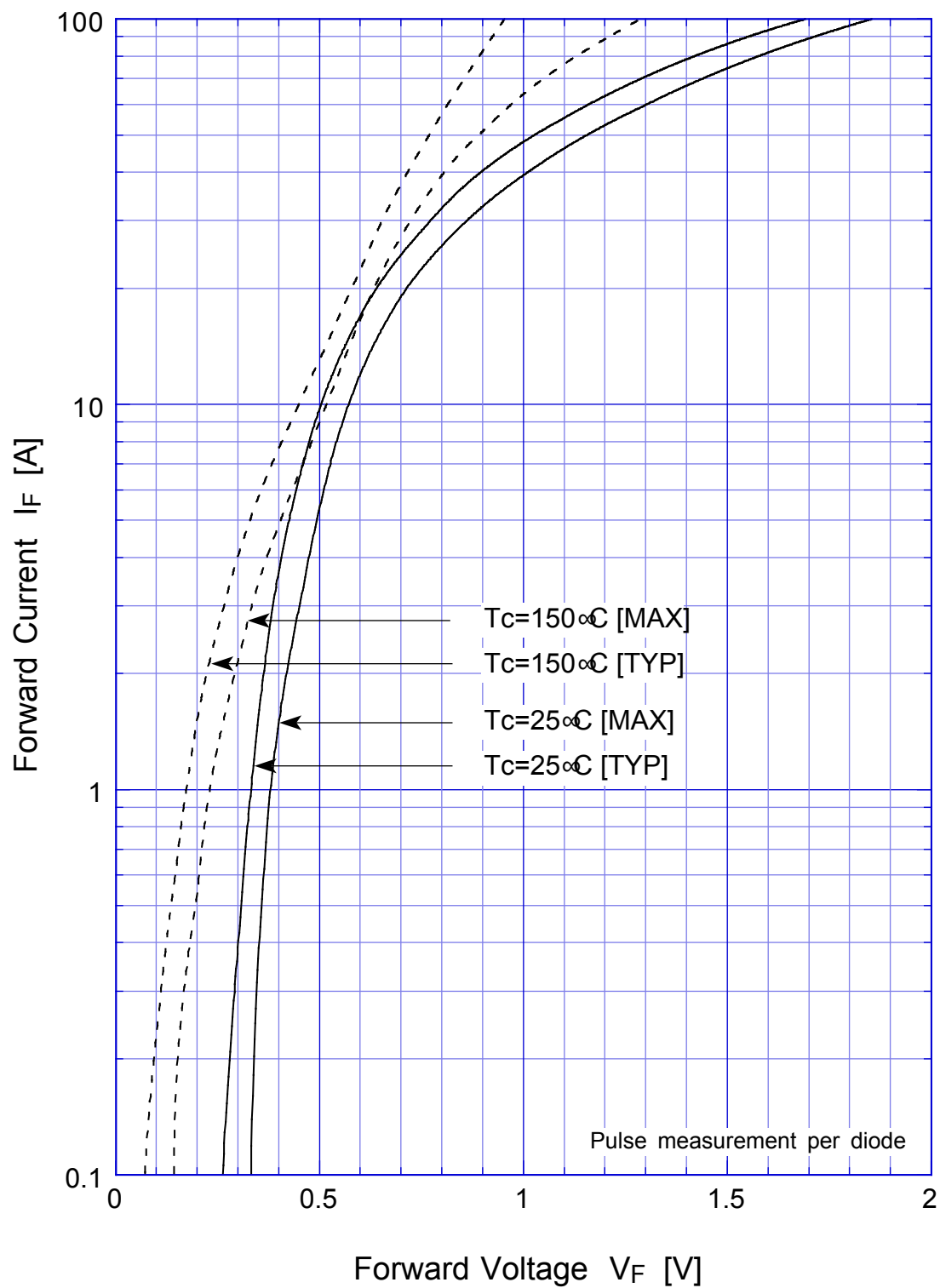
| Item                                  | Symbol | Conditions                                                 | Ratings   | Unit |
|---------------------------------------|--------|------------------------------------------------------------|-----------|------|
| Storage Temperature                   | Tstg   |                                                            | -55 ~ 150 |      |
| Operating Junction Temperature        | Tj     |                                                            | 150       |      |
| Maximum Reverse Voltage               | VRM    |                                                            | 60        | V    |
| Repetitive Peak Surge Reverse Voltage | VRISM  | Pulse width 0.5ms, duty 1/40                               | 65        | V    |
| Average Rectified Forward Current     | Io     | 50Hz sine wave, R-load, Rating for each diode Io/2, Tc=107 | 30        | A    |
| Peak Surge Forward Current            | IFSM   | 50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25   | 250       | A    |
| Repetitive Peak Surge Reverse Power   | PRISM  | Pulse width 10 μ s, Rating of per diode, Tj=25             | 660       | W    |
| Dielectric Strength                   | Vdis   | Terminals to case, AC 1 minute                             | 2         | kV   |
| Mounting Torque                       | TOR    | (Recommended torque 0.3N·m )                               | 0.5       | N·m  |

• Electrical Characteristics (If not specified Tc=25 )

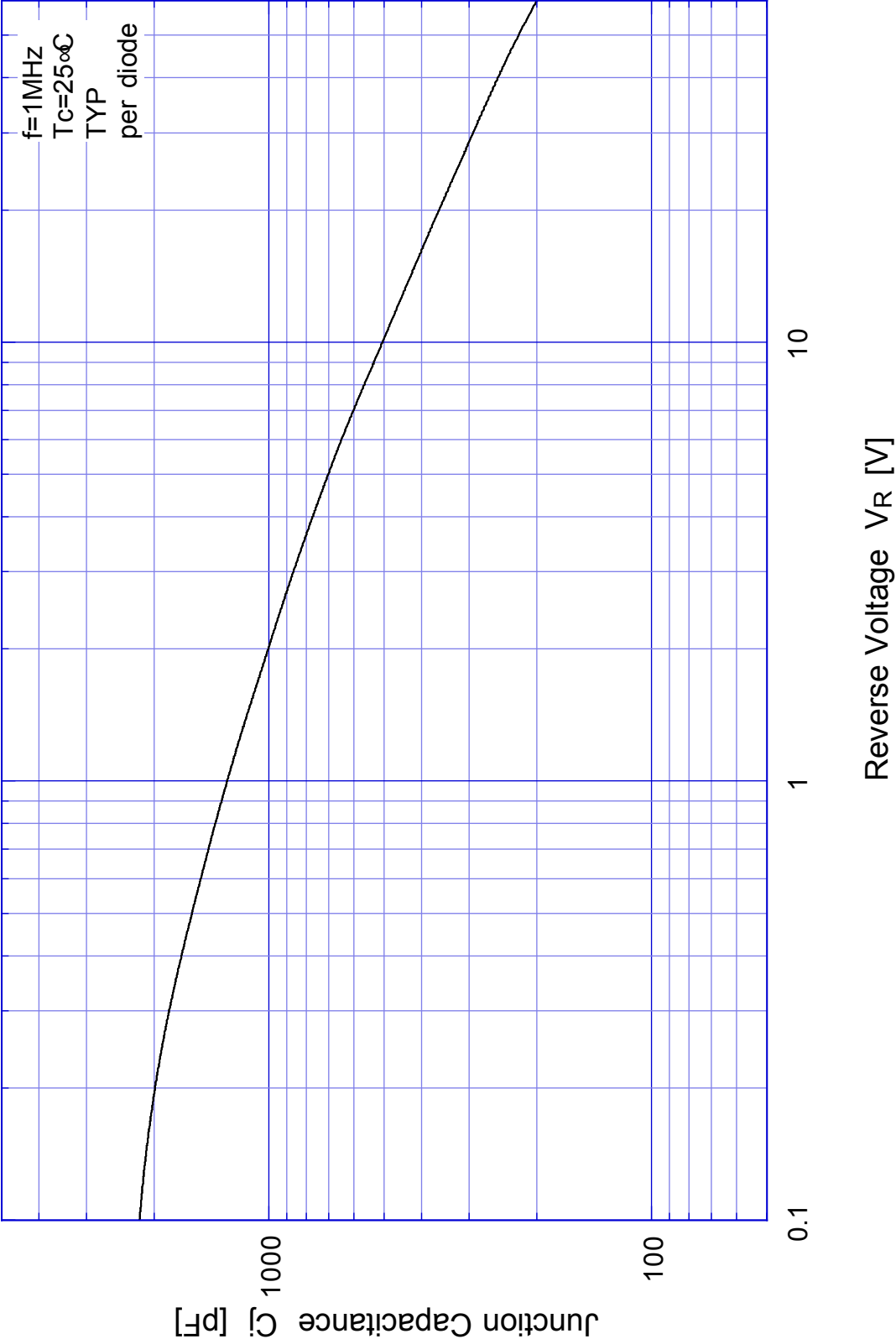
| Item                 | Symbol | Conditions                                     | Ratings  | Unit |
|----------------------|--------|------------------------------------------------|----------|------|
| Forward Voltage      | VF     | IF=15A, Pulse measurement, Rating of per diode | Max.0.63 | V    |
| Reverse Current      | IR     | VR=VRM, Pulse measurement, Rating of per diode | Max.10   | mA   |
| Junction Capacitance | Cj     | f=1MHz, VR=10V, Rating of per diode            | Typ.500  | pF   |
| Thermal Resistance   | θjc    | junction to case                               | Max.1.6  | /W   |

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## Forward Voltage

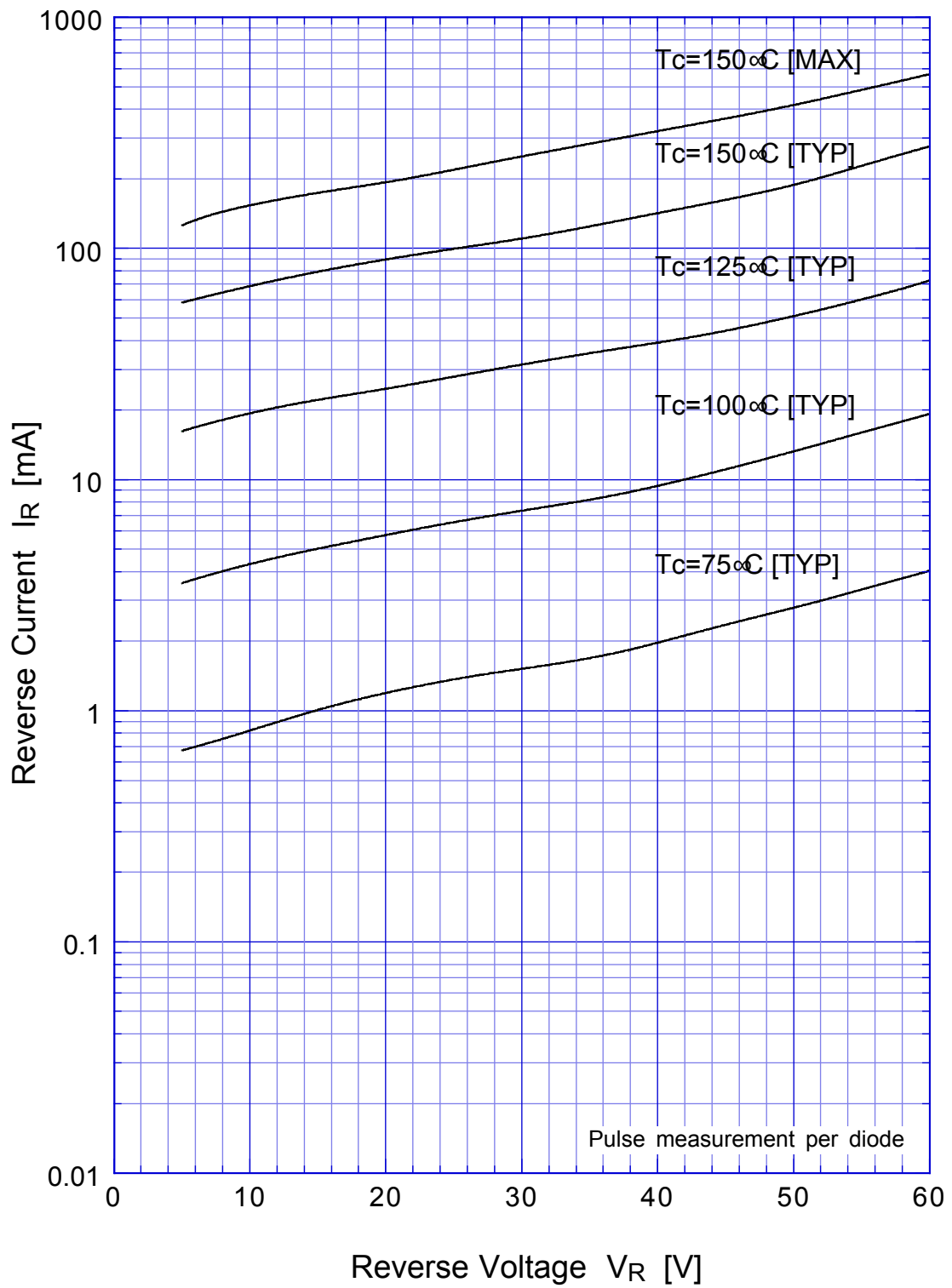


SF30SC6      Junction Capacitance

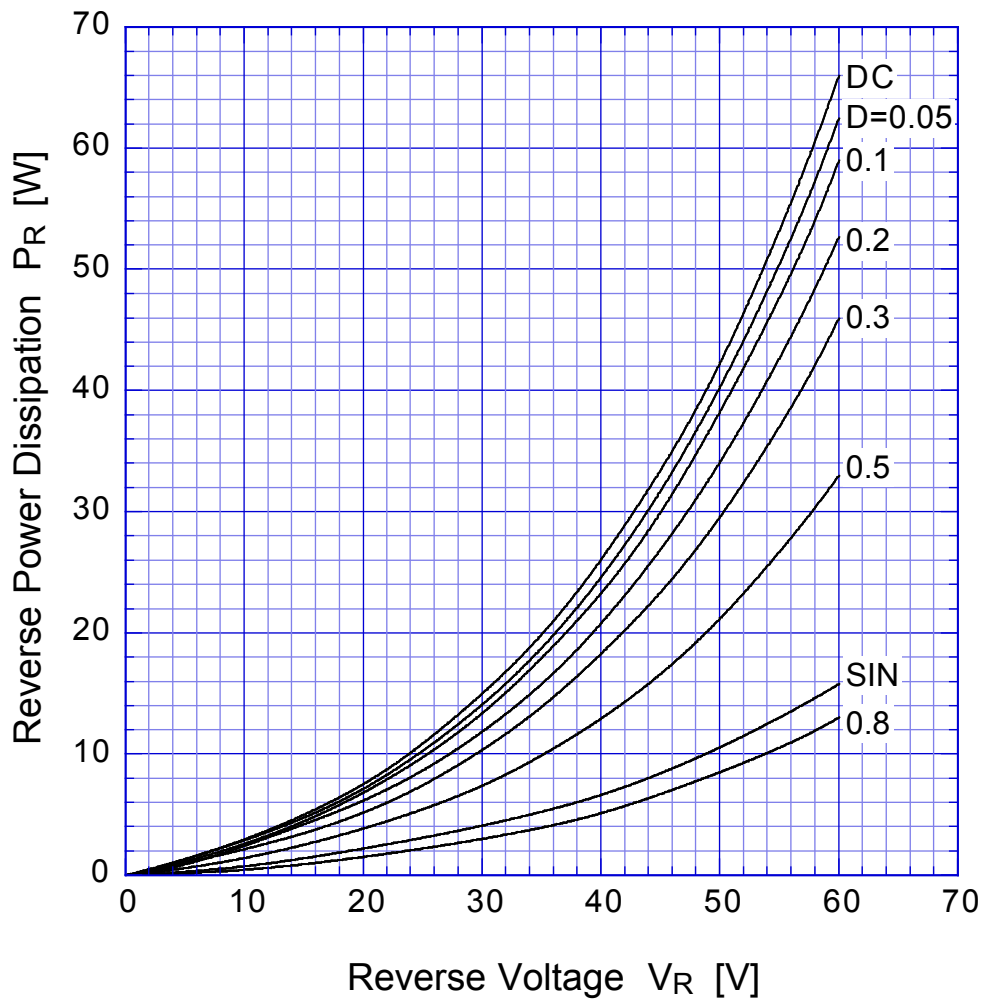


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## Reverse Current



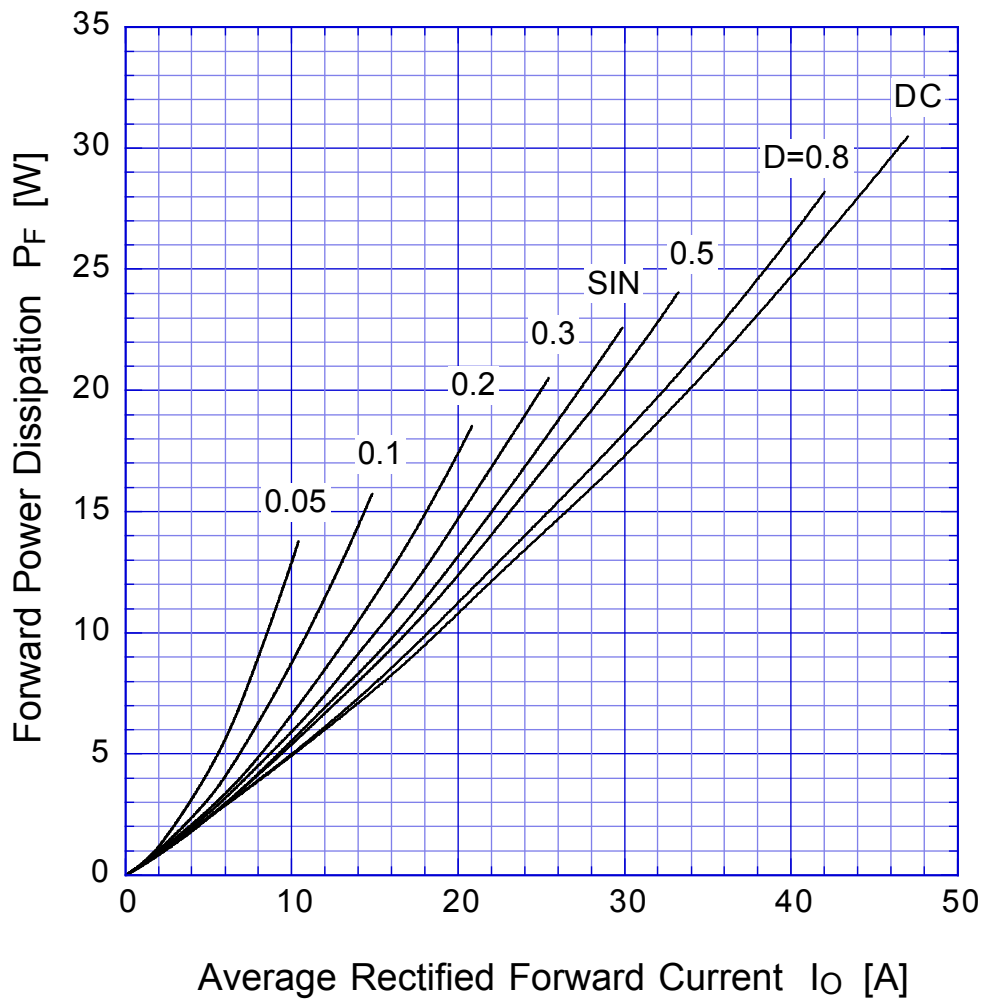
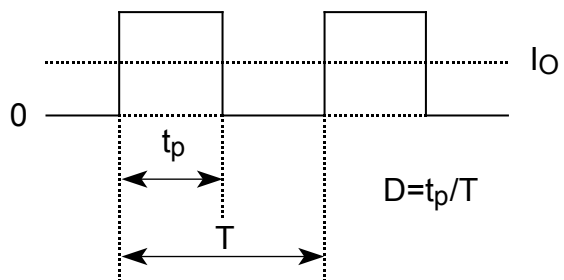
## SF30SC6 Reverse Power Dissipation



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

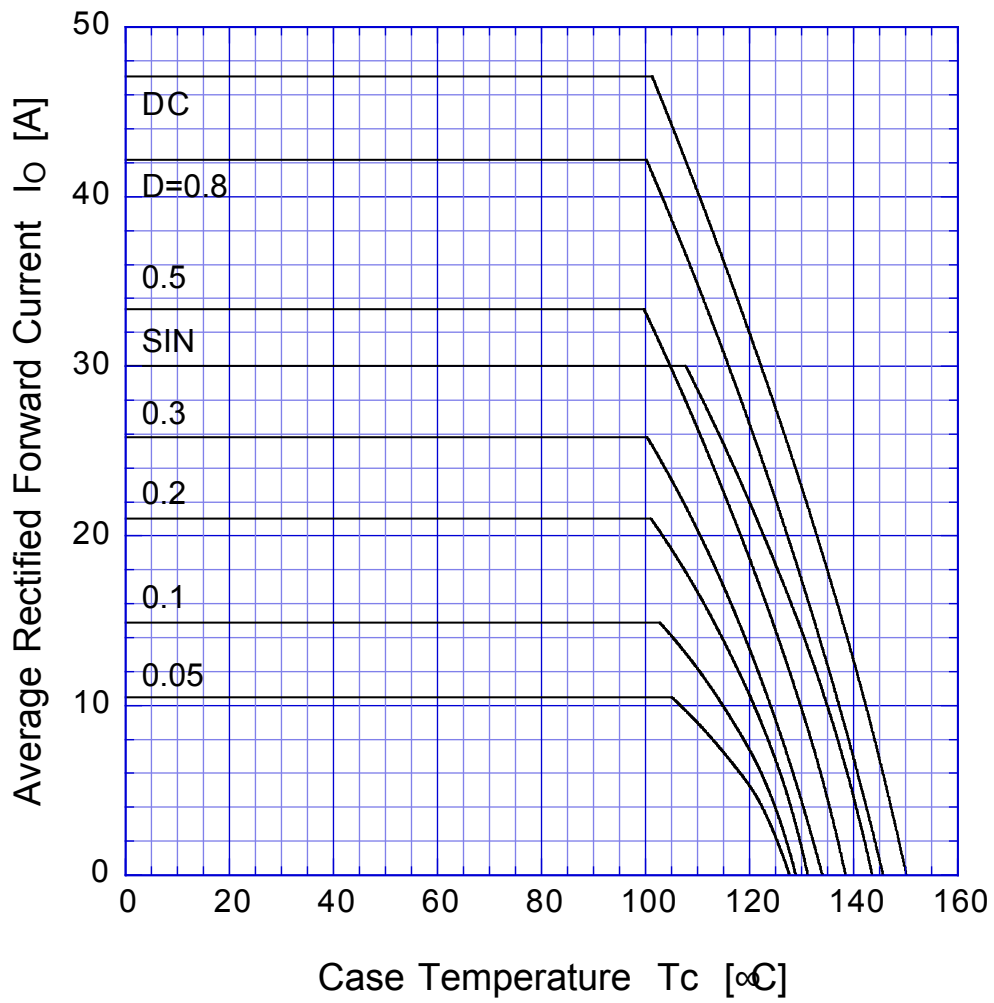


### Forward Power Dissipation

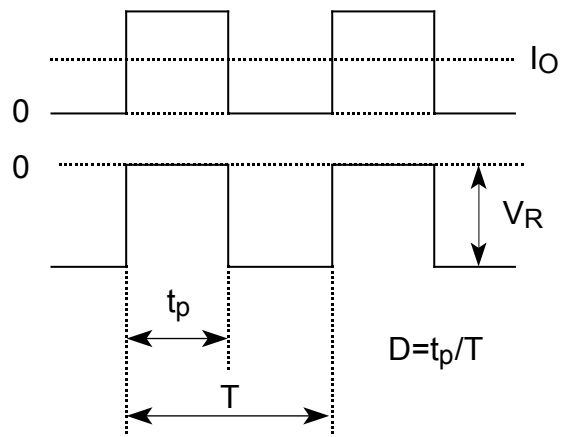

$$T_j = 150^{\circ}\text{C}$$


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## Derating Curve

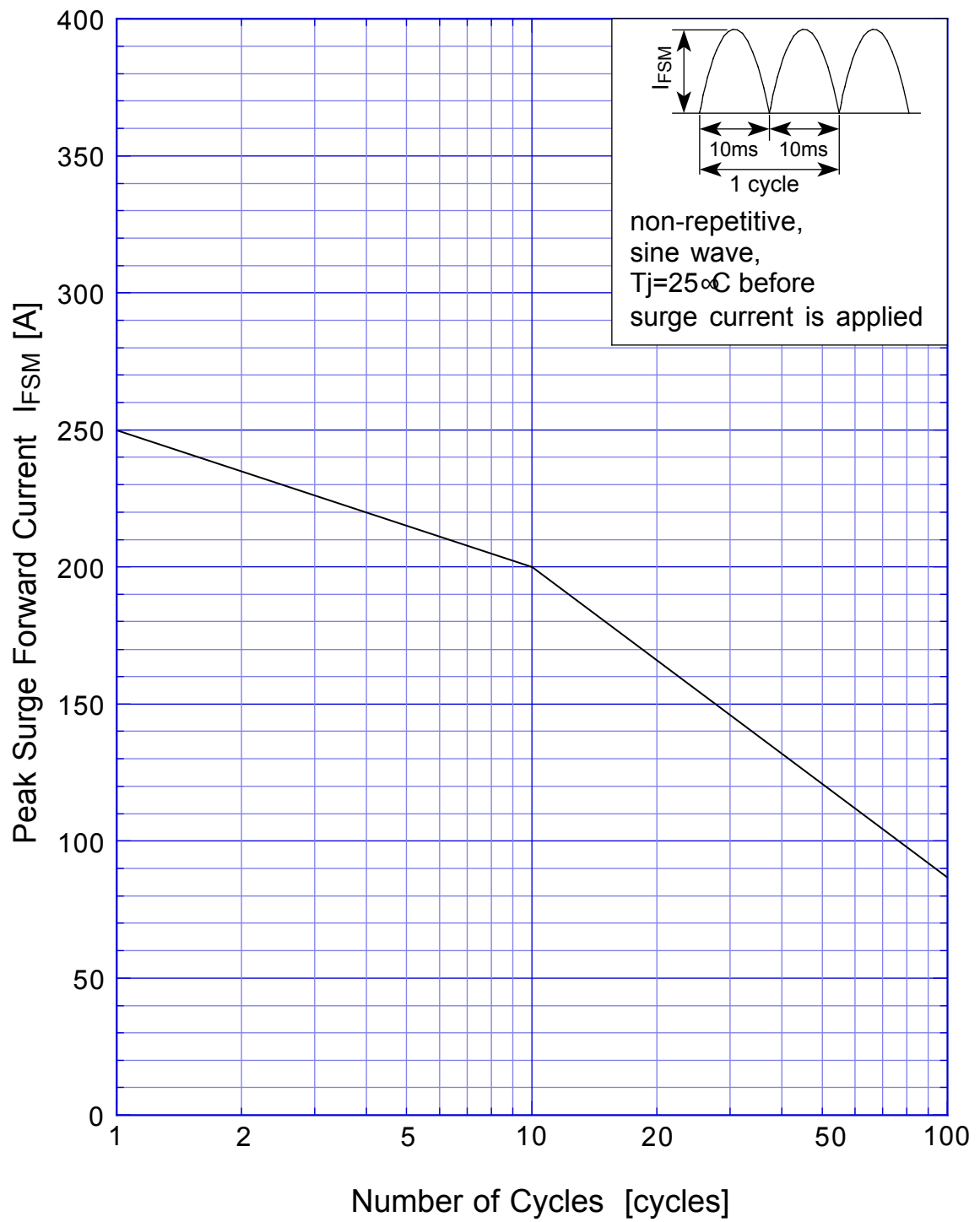


$V_R = 30V$



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## Peak Surge Forward Capability



## SBD Repetitive Surge Reverse Power Derating Curve



