

SHINDENGEN

Schottky Rectifiers (SBD)

Single

D2S4M

40V 2A

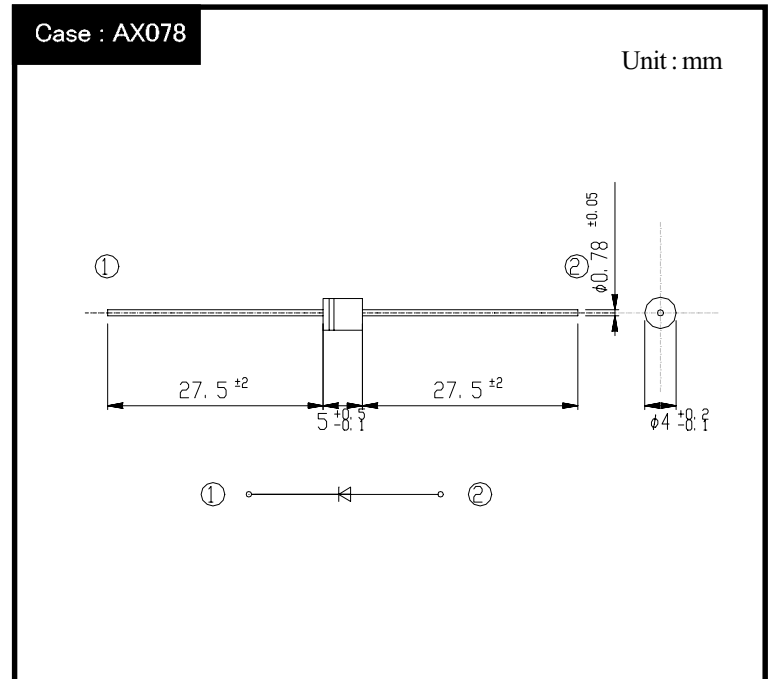
FEATURES

- Tj150°C
- P_{RRSM} avalanche guaranteed
- 0.8 φ lead

APPLICATION

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

OUTLINE DIMENSIONS



RATINGS

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

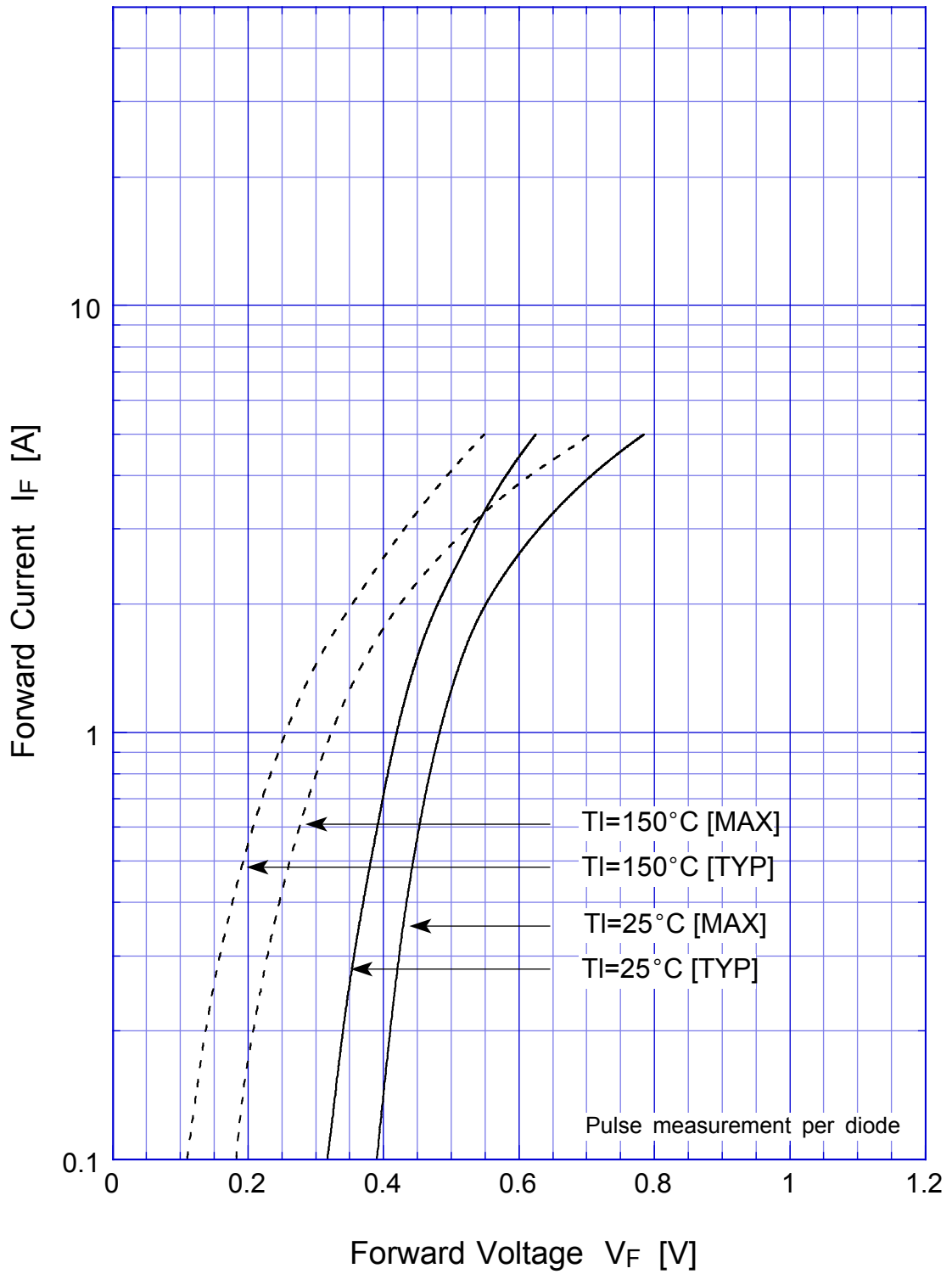
| Item | Symbol | Conditions | Ratings | Unit |
|---------------------------------------|-------------------|---|---------|------|
| Storage Temperature | T _{stg} | | -40~150 | °C |
| Operating Junction Temperature | T _j | | 150 | °C |
| Maximum Reverse Voltage | V _{RM} | | 40 | V |
| Repetitive Peak Surge Reverse Voltage | V _{RRSM} | Pulse width 0.5ms, duty 1/40 | 45 | V |
| Average Rectified Forward Current | I _O | 50Hz sine wave, R-load T _a =36°C | 1.5 | A |
| | | 50Hz sine wave, R-load T _l =122°C | 2 | |
| Peak Surge Forward Current | I _{FSM} | 50Hz sine wave, Non-repetitive 1 cycle peak value, T _j =25°C | 60 | A |
| Repetitive Peak Surge Reverse Power | P _{RRSM} | Pulse width 10 μs, T _j =25°C | 160 | W |

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

| Item | Symbol | Conditions | Ratings | Unit |
|----------------------|-----------------|---|----------|------|
| Forward Voltage | V _F | I _F =2A, Pulse measurement | Max.0.55 | V |
| Reverse Current | I _R | V _R =V _{RM} , Pulse measurement | Max.2 | mA |
| Junction Capacitance | C _j | f=1MHz, V _R =10V | Typ.95 | pF |
| Thermal Resistance | θ _{jl} | junction to lead | Max.17 | °C/W |
| | θ _{ja} | junction to ambient | Max.105 | |

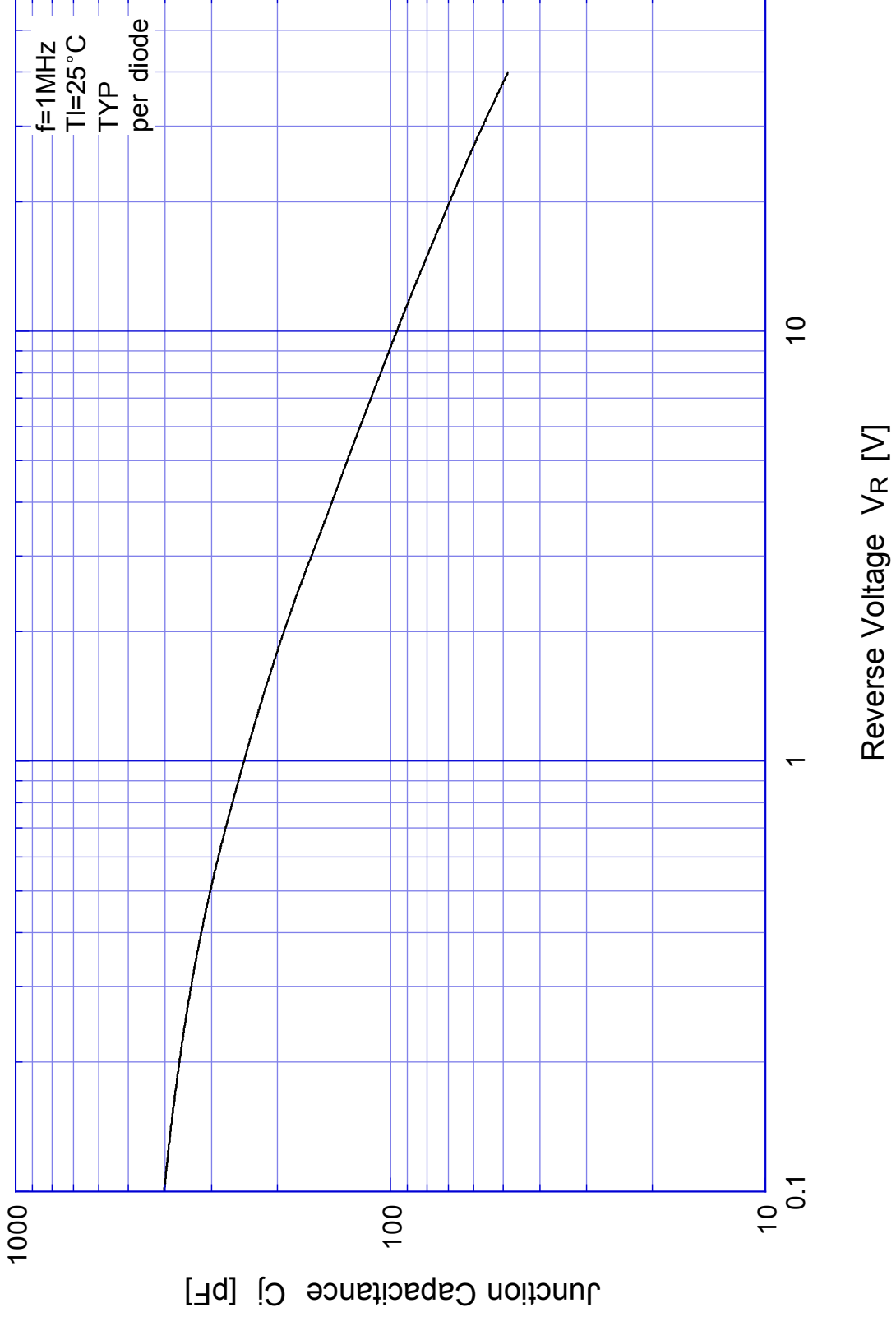
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Forward Voltage



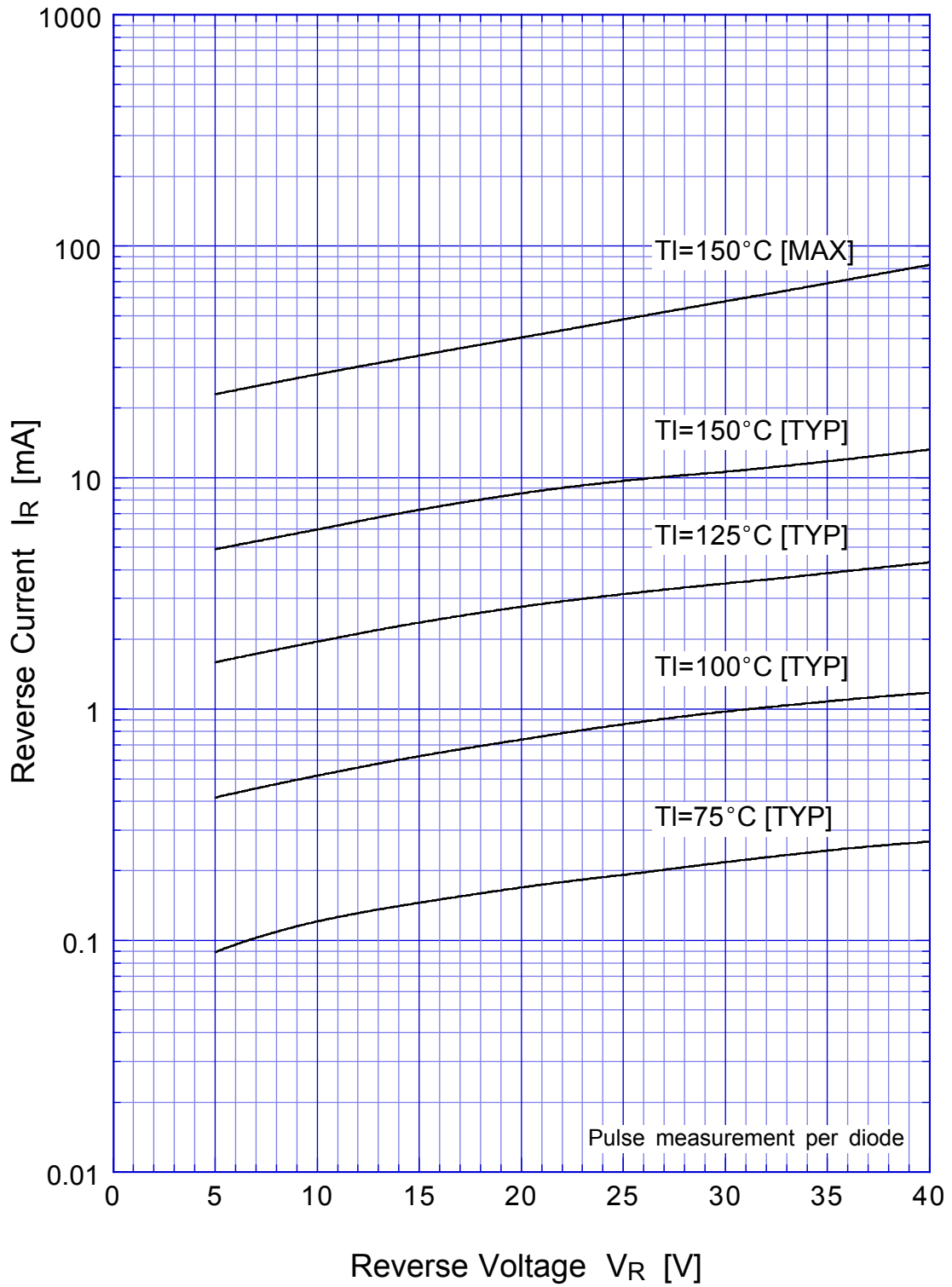
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Junction Capacitance



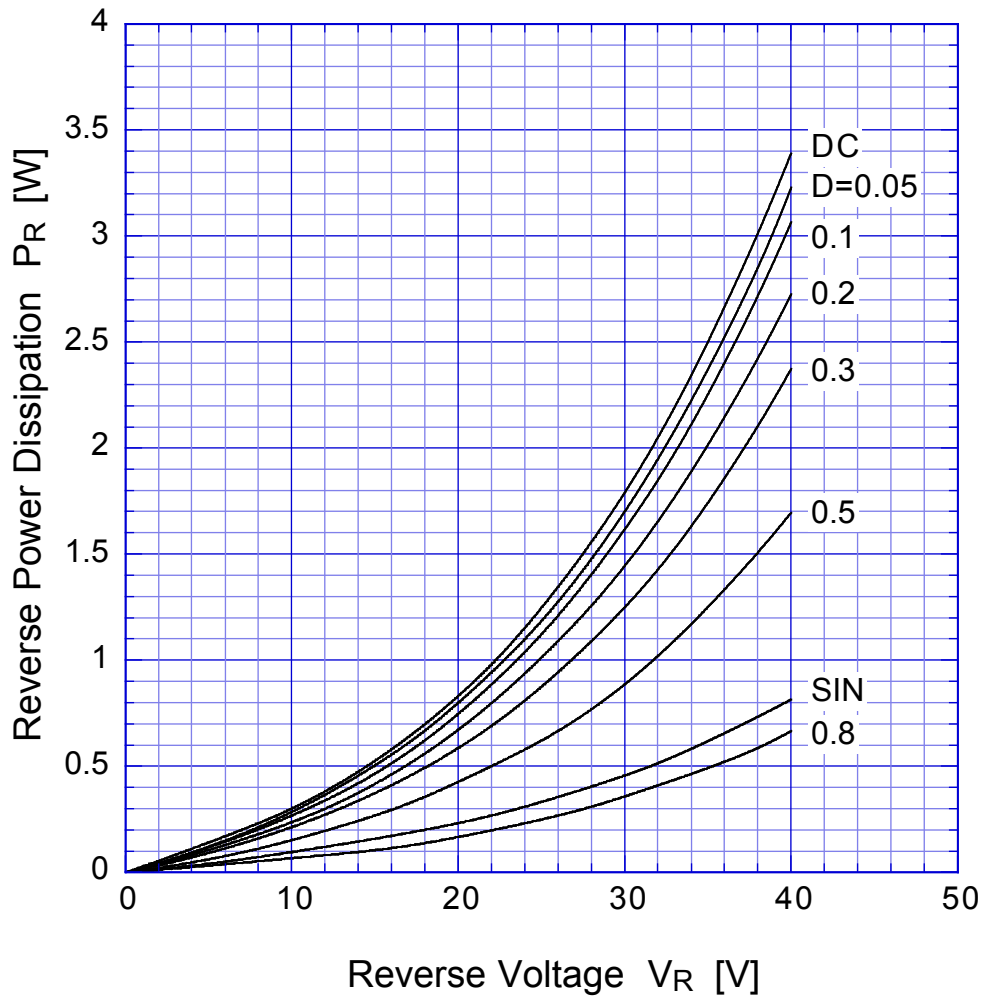
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Reverse Current

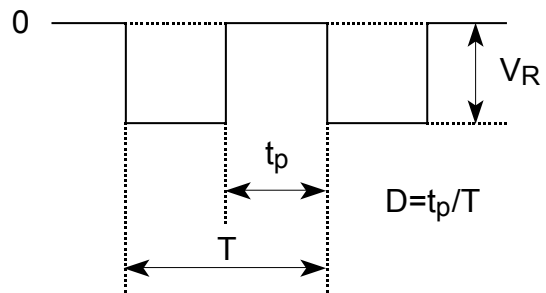


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Reverse Power Dissipation

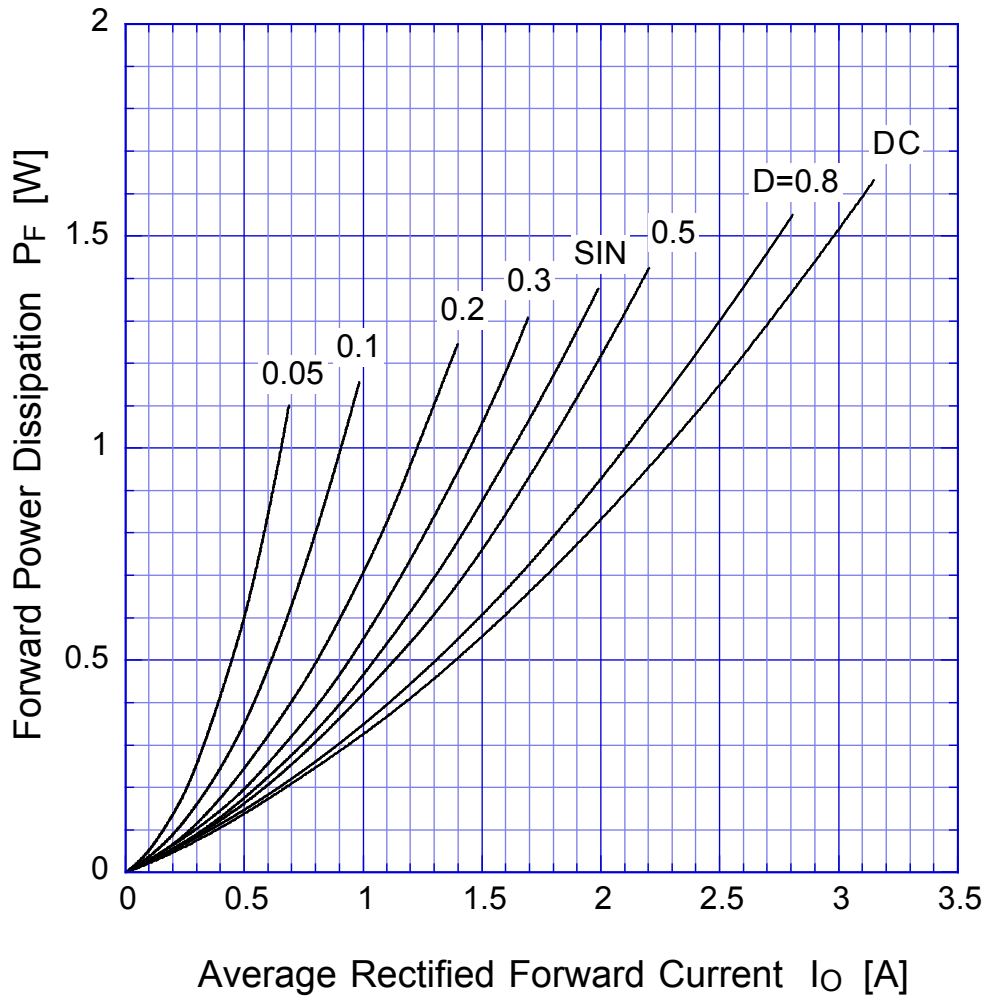


$T_j = 150^\circ\text{C}$

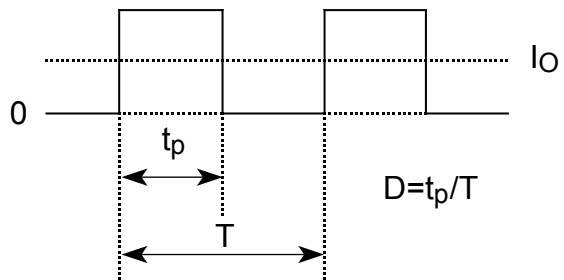


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Forward Power Dissipation

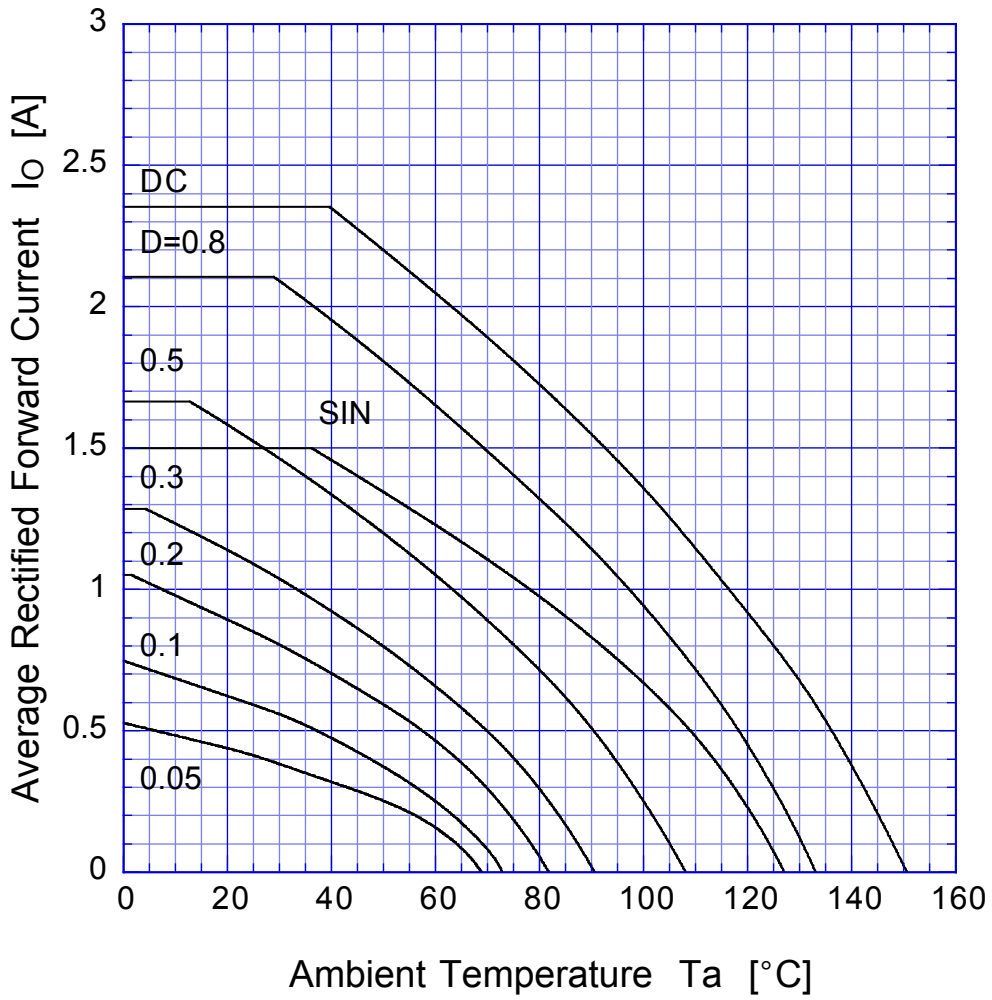


$T_j = 150^\circ\text{C}$

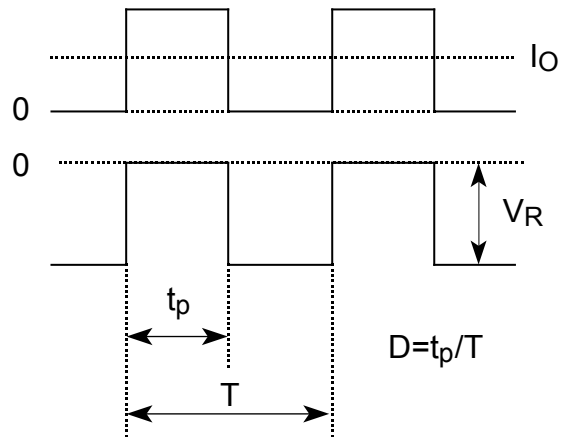


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Derating Curve

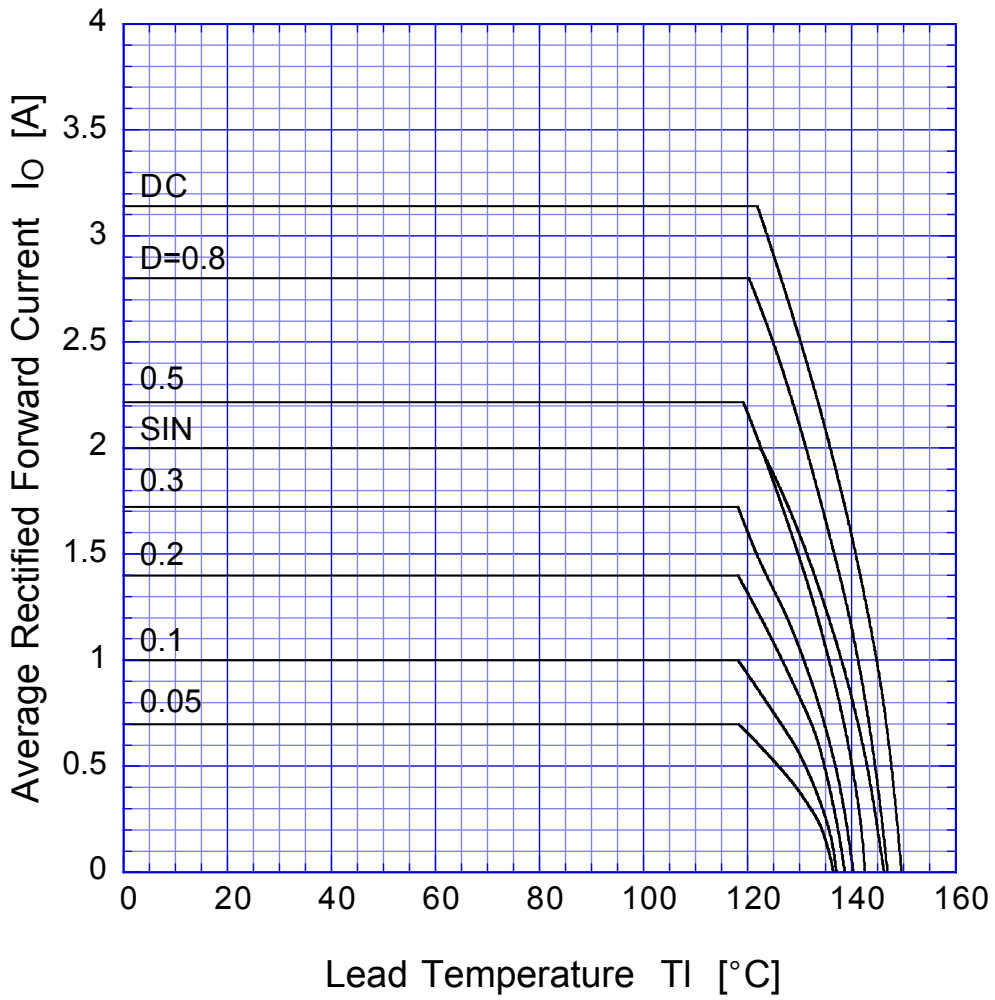


$V_R = 20V$



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Derating Curve

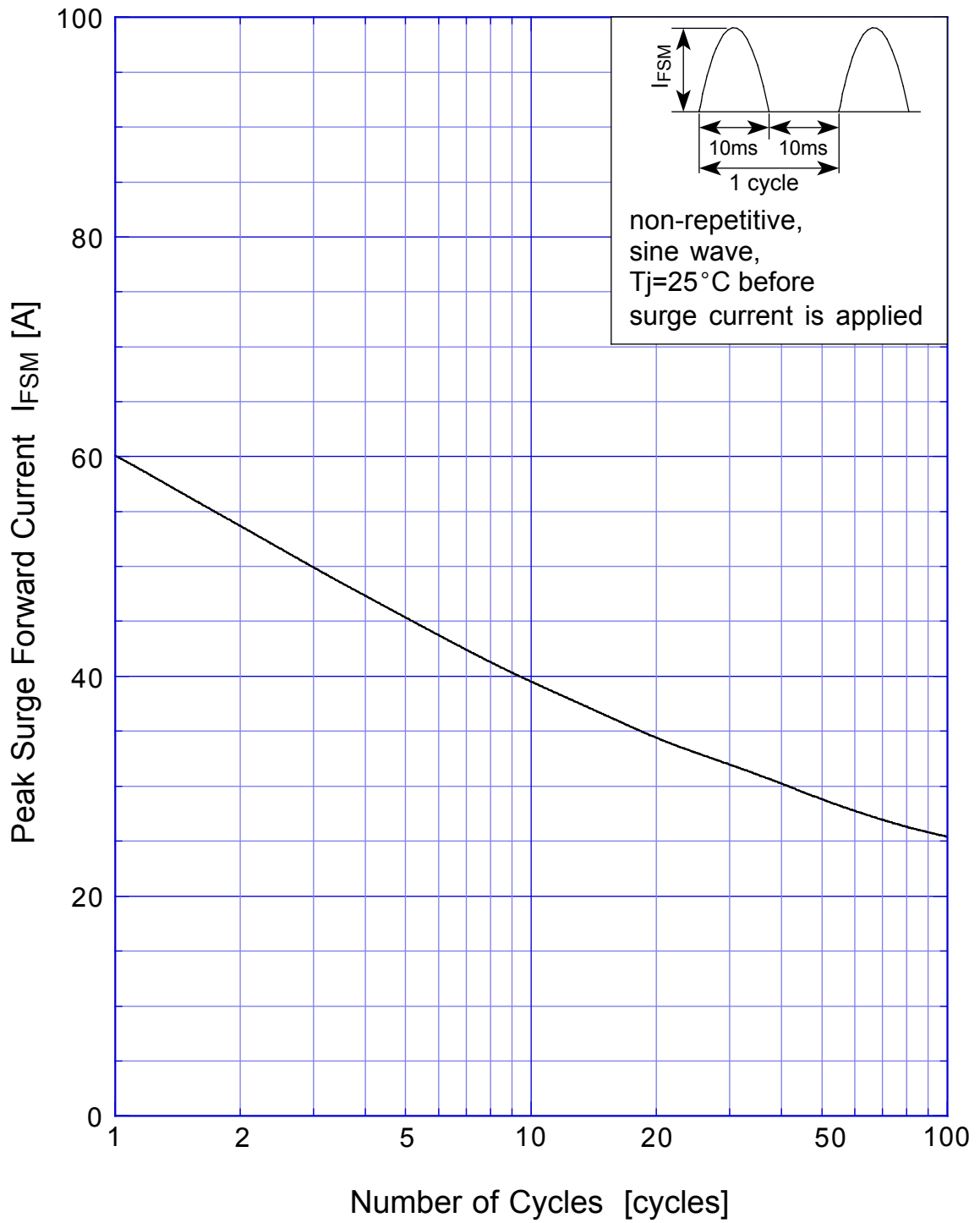


$V_R = 20V$

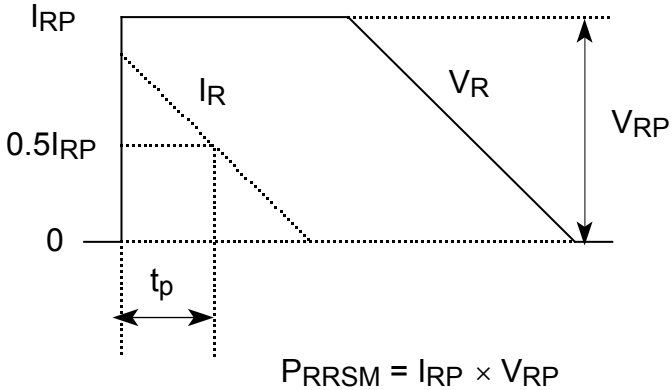


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Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve



SBD

Repetitive Surge Reverse Power Capability

