

SHINDENGEN

Schottky Rectifiers (SBD)

Dual

D30SC4M

40V 30A

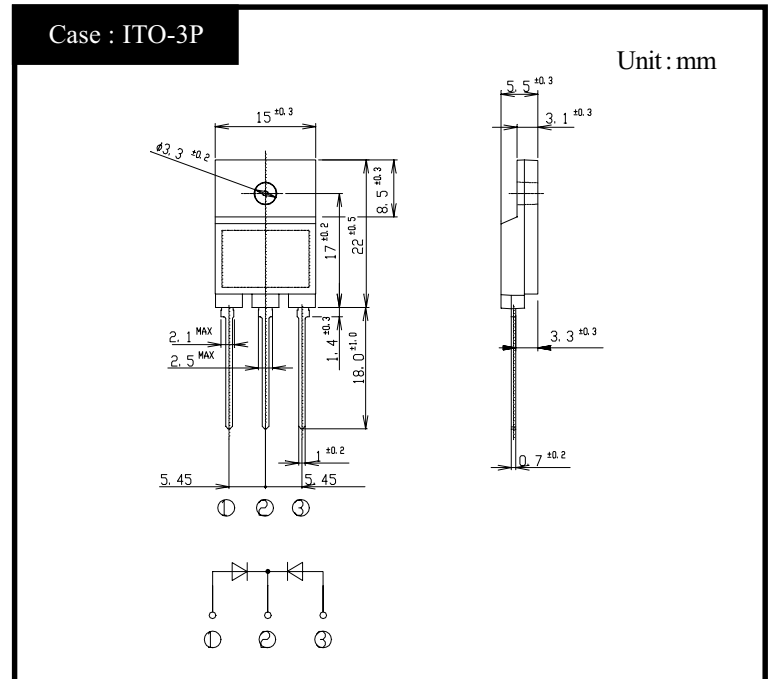
FEATURES

- Tj150°C
- P_{RRSM} avalanche guaranteed
- High current capacity
- Fully Isolated Molding

APPLICATION

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

OUTLINE DIMENSIONS



RATINGS

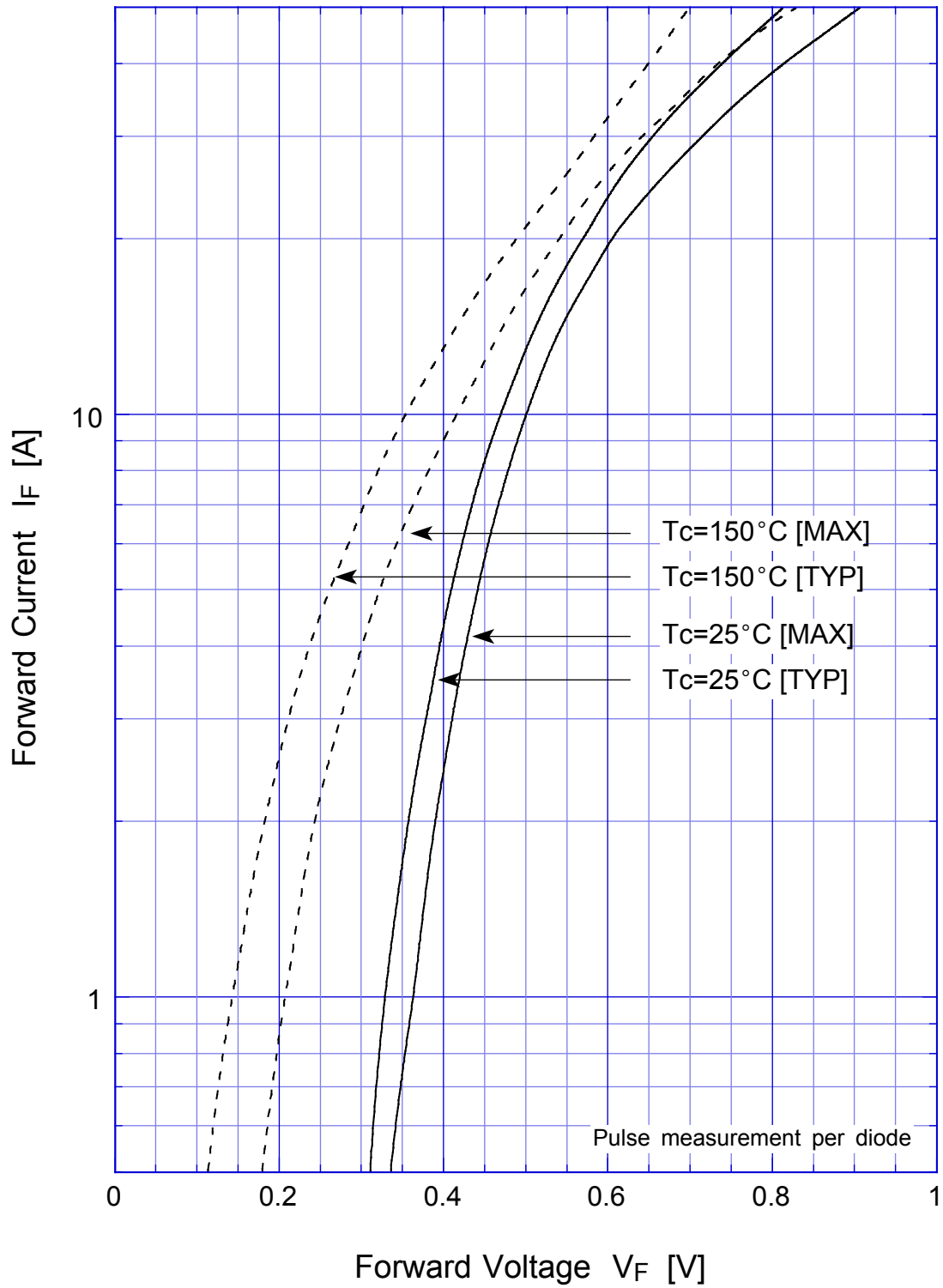
● Absolute Maximum Ratings (If not specified T_c=25°C)

| 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, Rating for each diode I _O /2, T _c =112°C | 30 | A |
| Peak Surge Forward Current | I _{FSM} | 50Hz sine wave, Non-repetitive 1 cycle peak value, T _j =125°C | 300 | A |
| Repetitive Peak Surge Reverse Power | P _{RRSM} | Pulse width 10 μs, Rating of per diode, T _j =25°C | 1000 | W |
| Dielectric Strength | V _{dis} | Terminals to case, AC 1 minute | 1.5 | kV |
| Mounting Torque | TOR | (Recommended torque: 0.5N·m) | 0.8 | N·m |

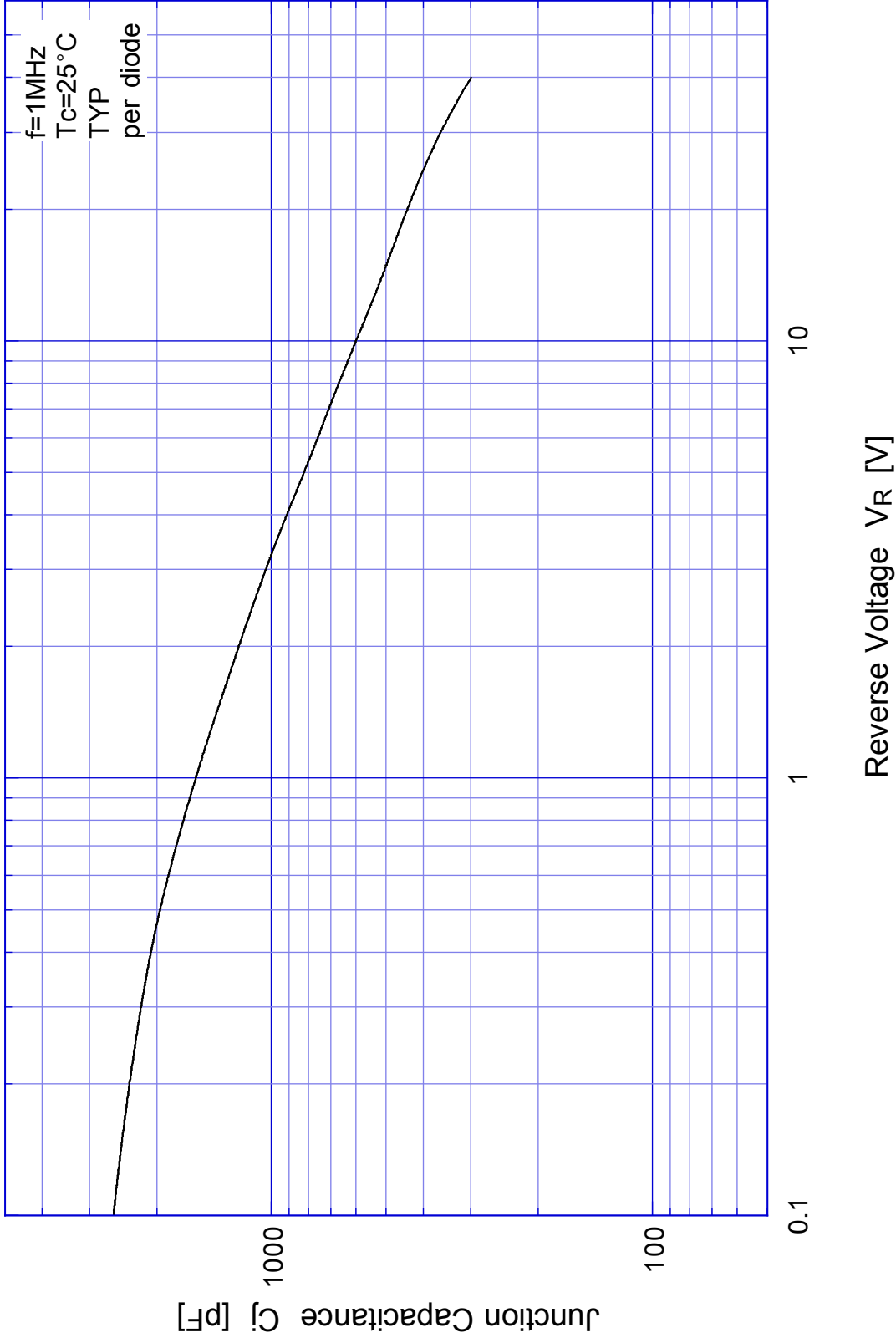
● Electrical Characteristics (If not specified T_c=25°C)

| Item | Symbol | Conditions | Ratings | Unit |
|----------------------|-----------------|--|----------------------|------|
| Forward Voltage | V _F | I _F =15A, Pulse measurement, Rating of per diode | Max.0.55 | V |
| Reverse Current | I _R | V _R =V _{RM} , Pulse measurement, Rating of per diode | Max. 10 | mA |
| Junction Capacitance | C _j | f=1MHz, V _R =10V, Rating of per diode | T _{yp} .590 | pF |
| Thermal Resistance | θ _{jc} | junction to case | Max.1.6 | °C/W |

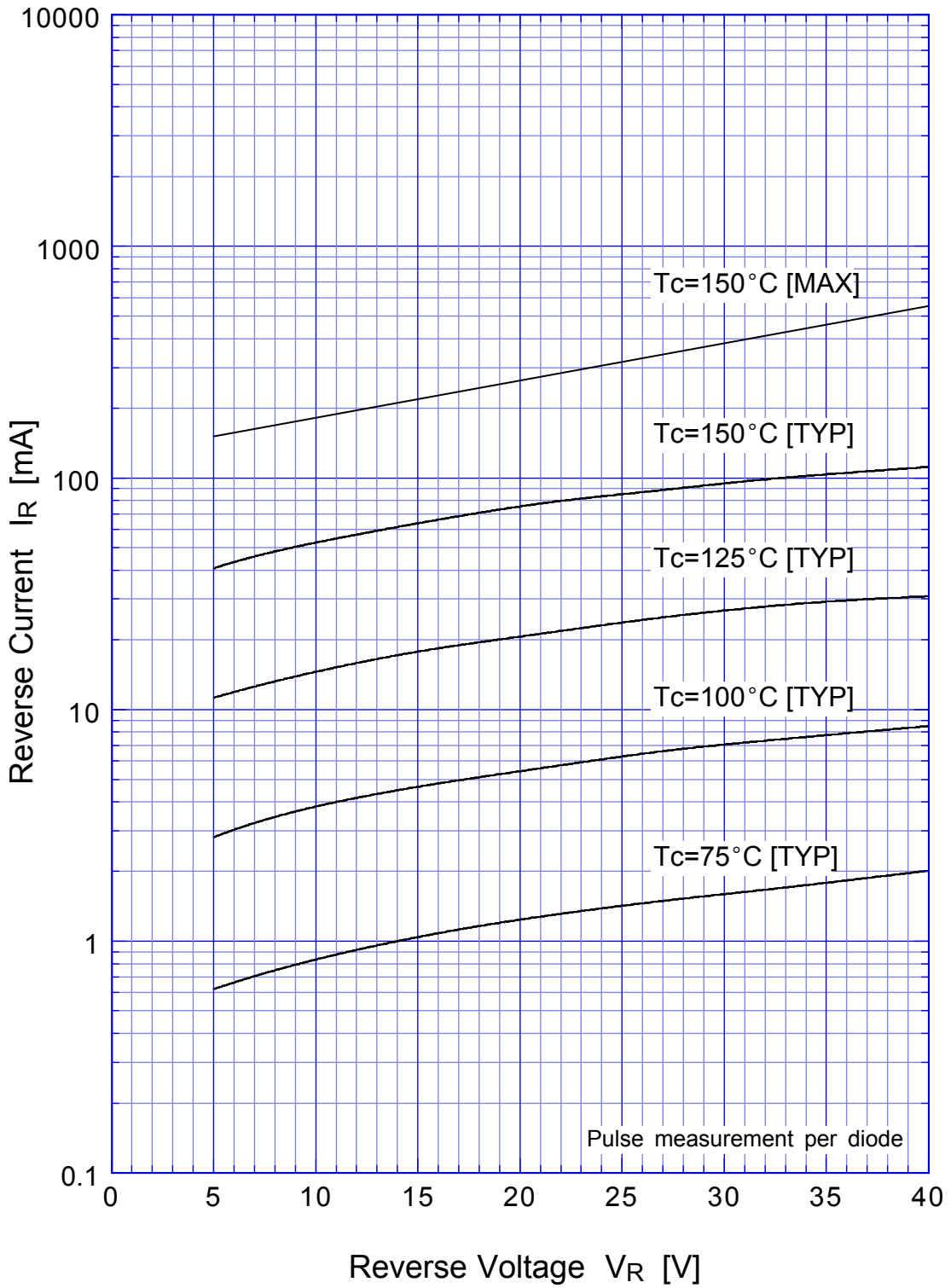
D30SC4M Forward Voltage



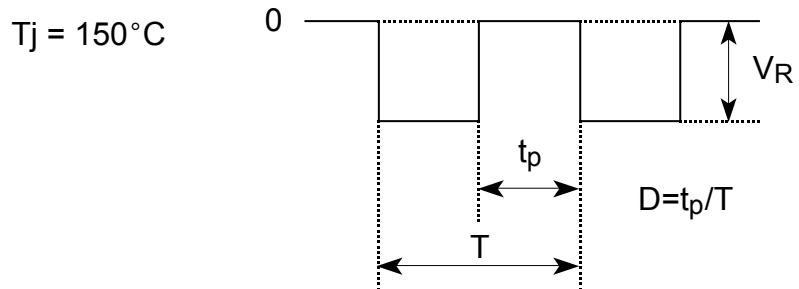
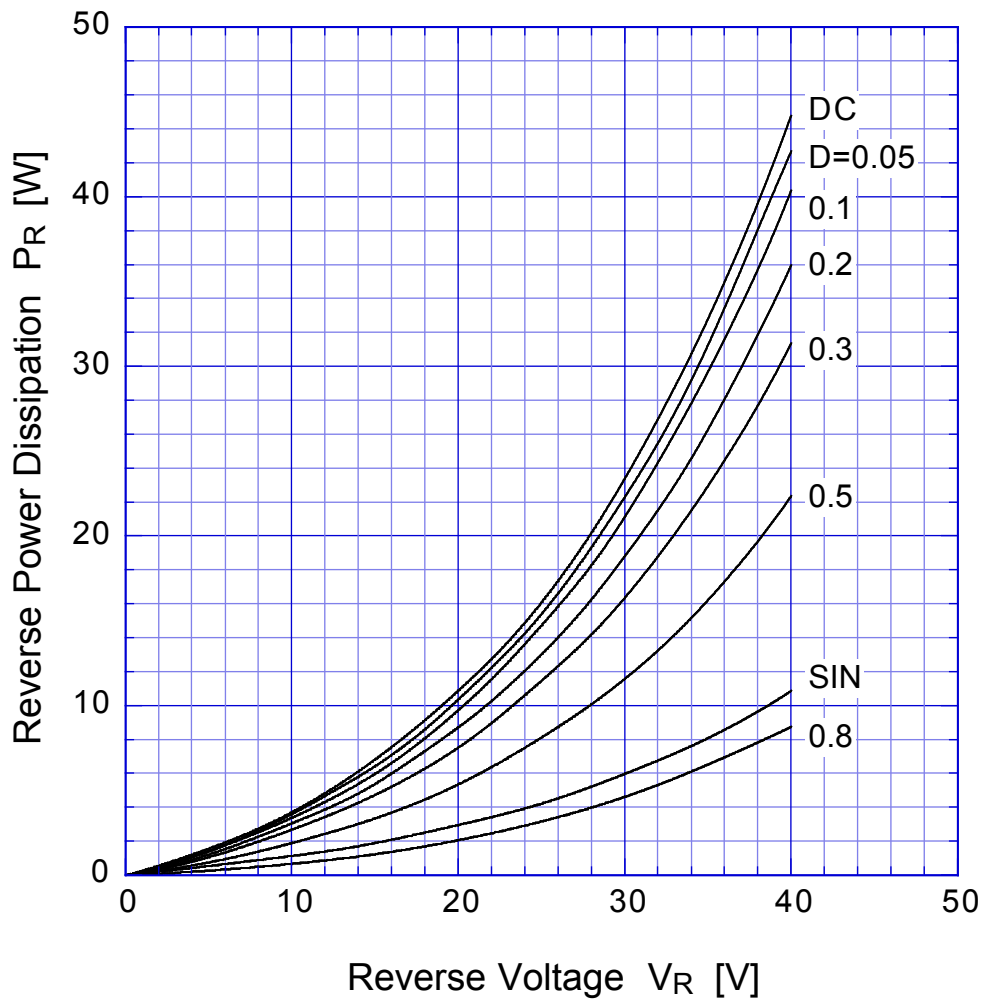
D30SC4M Junction Capacitance



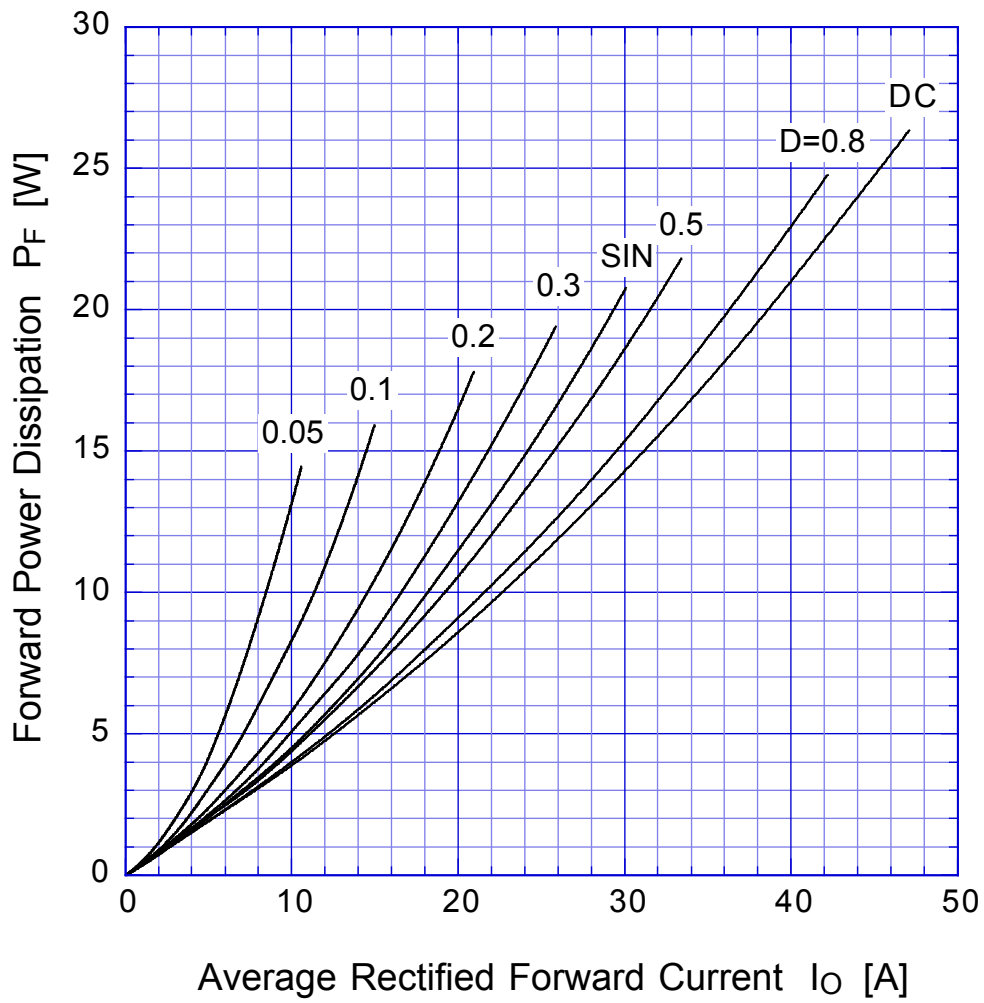
D30SC4M Reverse Current



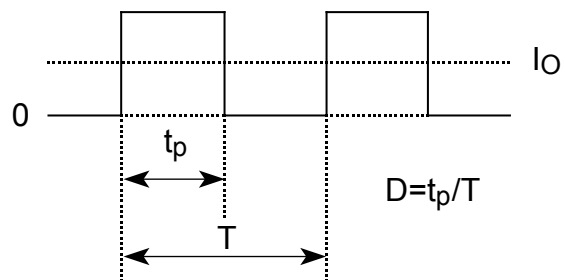
D30SC4M Reverse Power Dissipation



D30SC4M Forward Power Dissipation

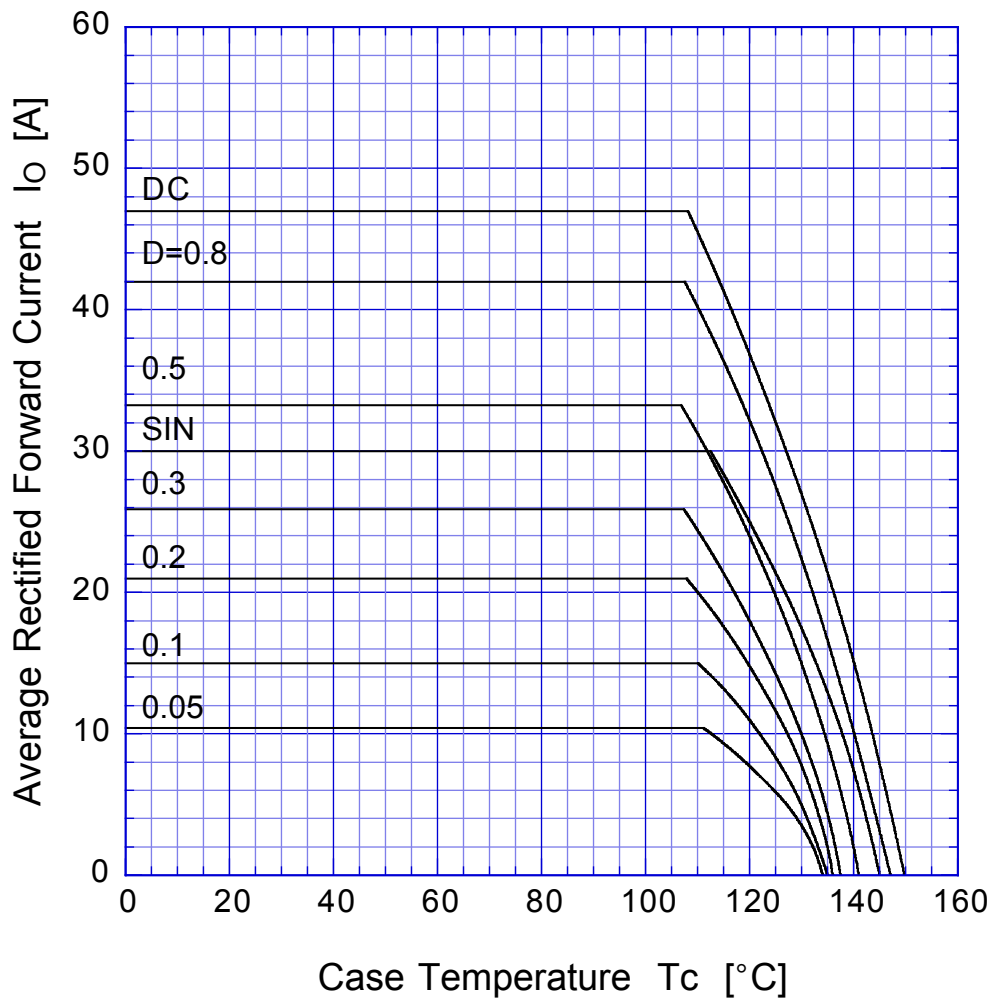


$T_j = 150^\circ\text{C}$



D30SC4M

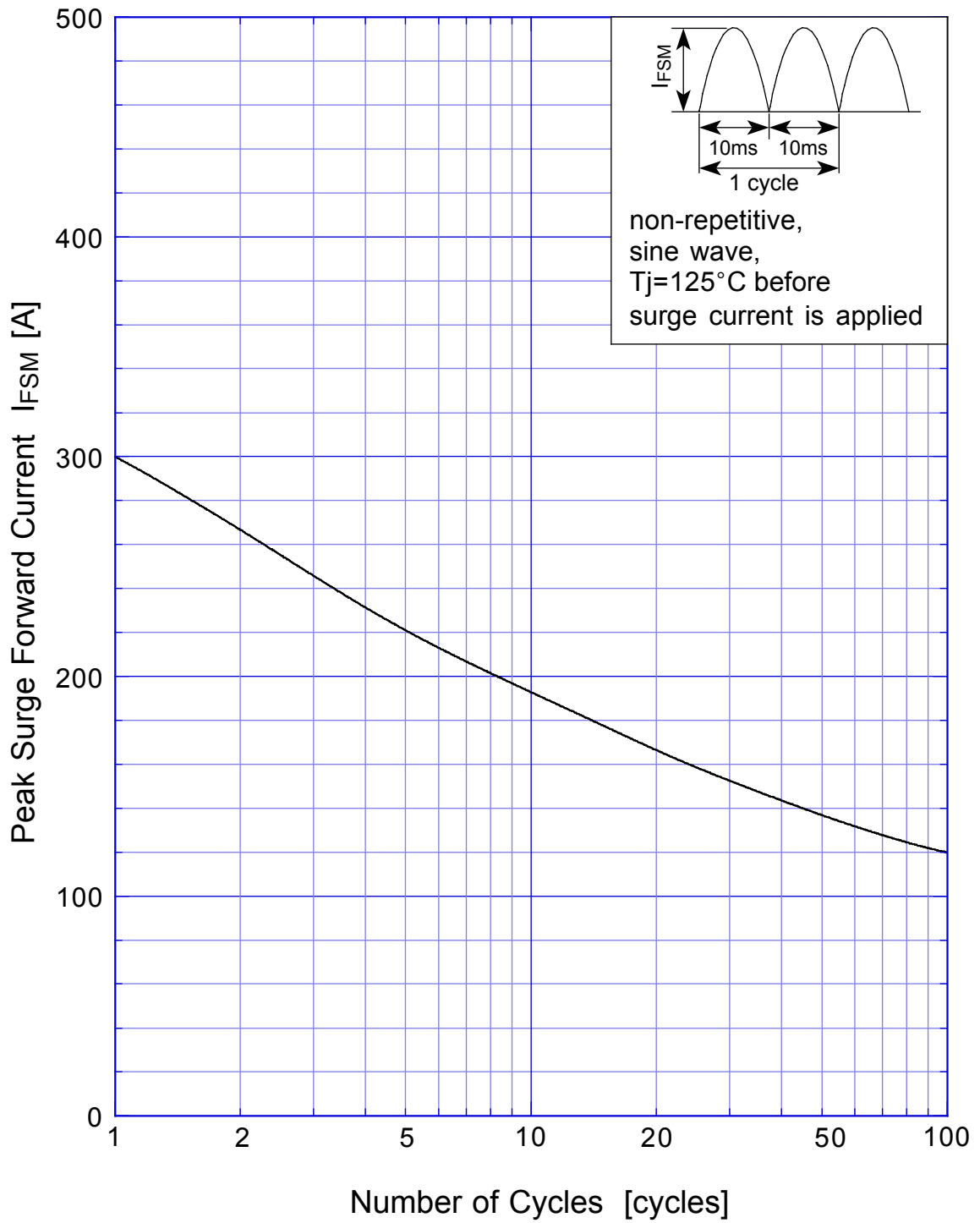
Derating Curve



$V_R = 20V$



D30SC4M Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve



SBD

Repetitive Surge Reverse Power Capability

