# SHINDENGEN

## Schottky Rectifiers (SBD)

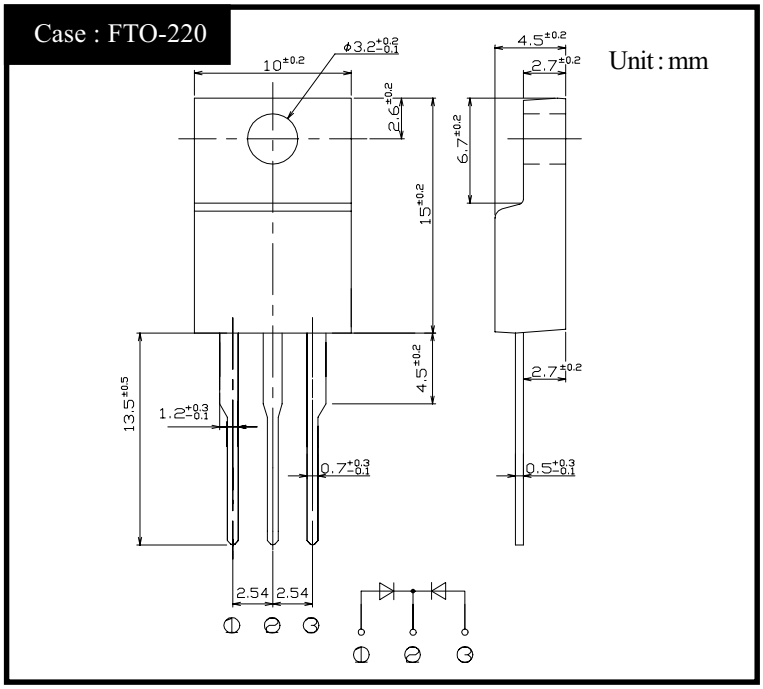
**Dual**

# SF20SC9

**90V 20A**

## OUTLINE DIMENSIONS

Case : FTO-220




## FEATURES

- Tj150℃
- PRRSM avalanche guaranteed
- Fully Isolated Molding
- High current capacity with Small Package
- Dielectric strength 2kV guaranteed

## APPLICATION

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

## RATINGS

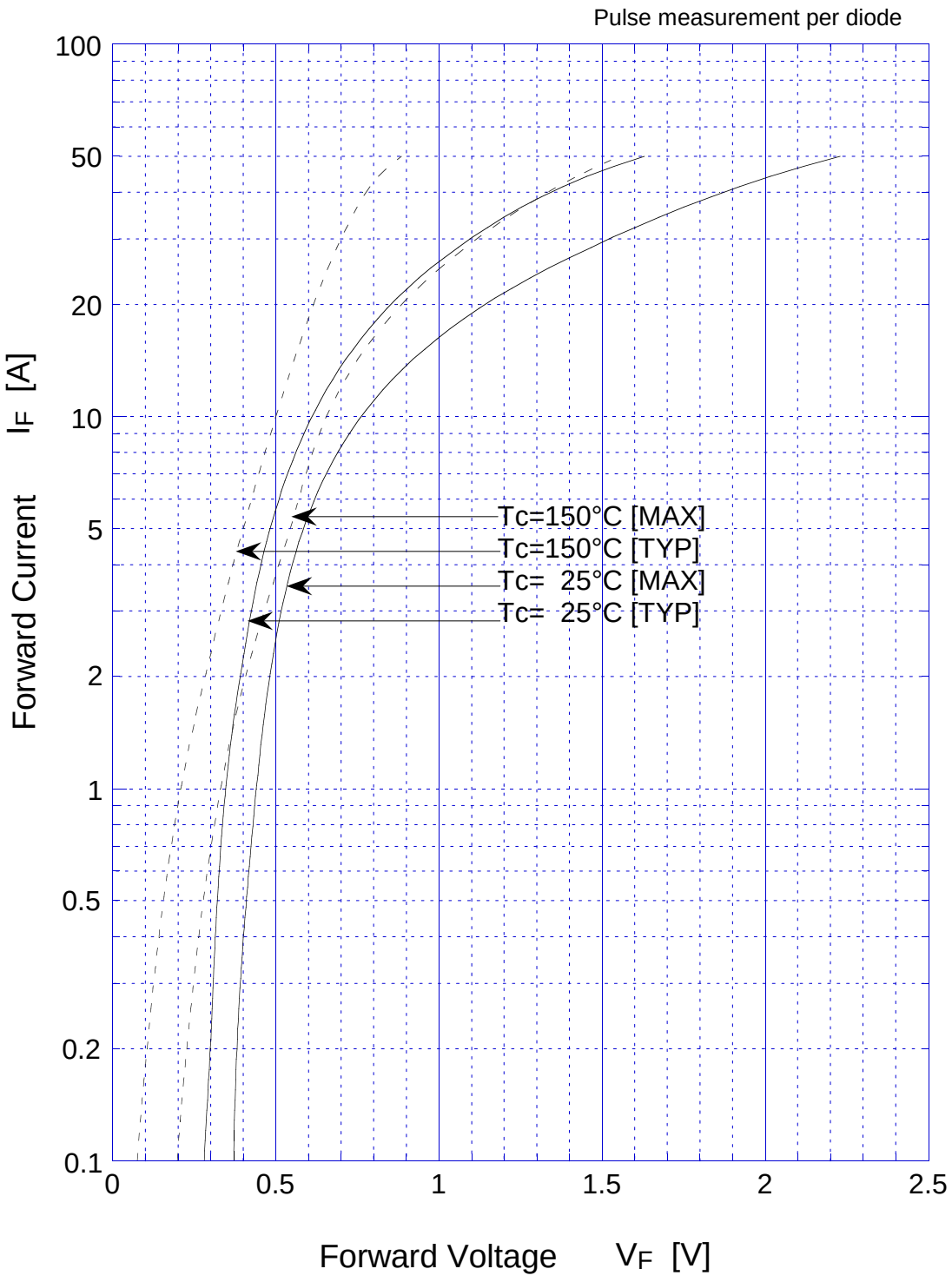
●Absolute Maximum Ratings （ If not specified, Tc=25℃）

| Item | Symbol | Conditions | Ratings | Unit |
|---|---|---|---|---|
| Storage Temperature | Tstg | | -55～150 | ℃ |
| Operating Junction Temperature | Tj | | 150 | ℃ |
| Maximum Reverse Voltage | VRM | | 90 | V |
| Repetitive Peak Surge Reverse Voltage | VRRSM | Pulse width 0.5ms, duty 1/40 | 100 | V |
| Average Rectified Forward Current | Io | 50Hz sine wave, R-load, Rating for each diode Io/2, Tc=100℃ | 20 | A |
| Peak Surge Forward Current | IFSM | 50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25℃ | 200 | A |
| Repetitive Peak Surge Reverse Power | PRRSM | 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 |

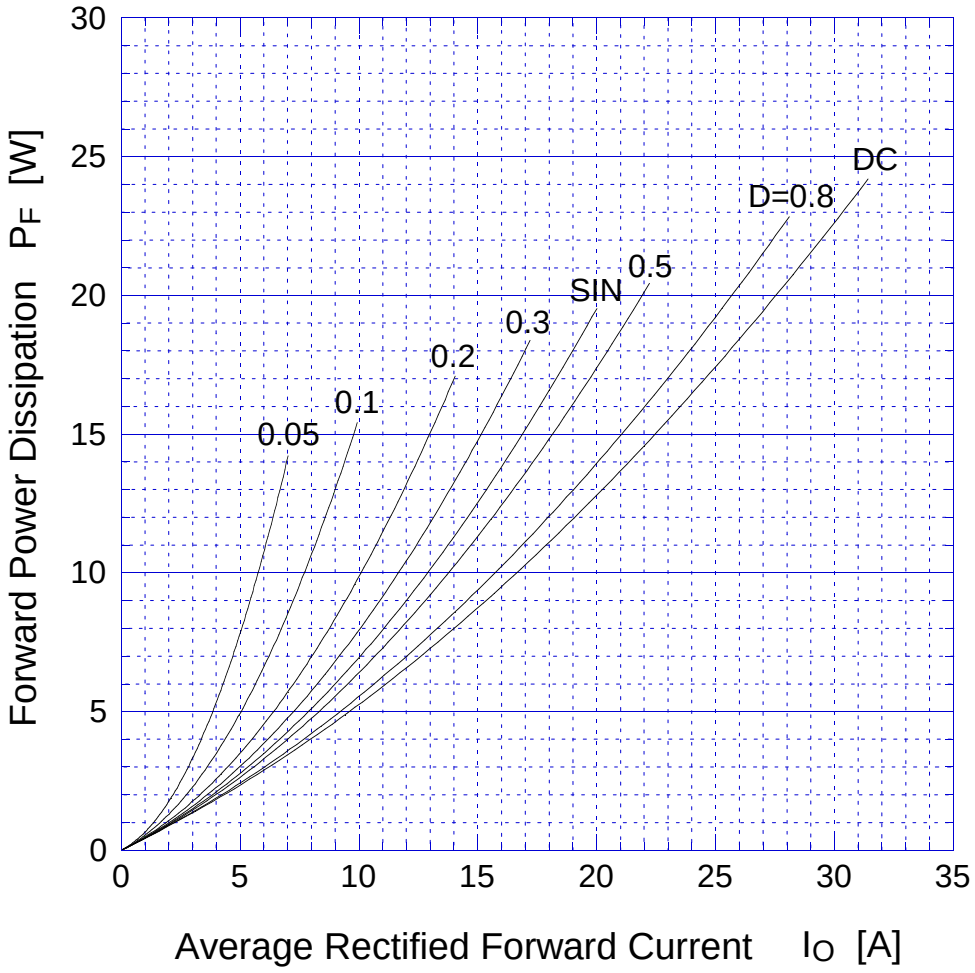
●Electrical Characteristics （ If not specified, Tc=25℃）

| Item | Symbol | Conditions | Ratings | Unit |
|---|---|---|---|---|
| Forward Voltage | VF | IF=10A, Pulse measurement, Rating of per diode | Max.0.75 | V |
| Reverse Current | IR | VR=90V, Pulse measurement, Rating of per diode | Max.10 | mA |
| Junction Capacitance | Cj | f=1MHz, VR=10V Rating of per diode | Typ.370 | pF |
| Thermal Resistance | θ jc | junction to case | Max.2.0 | ℃/W |

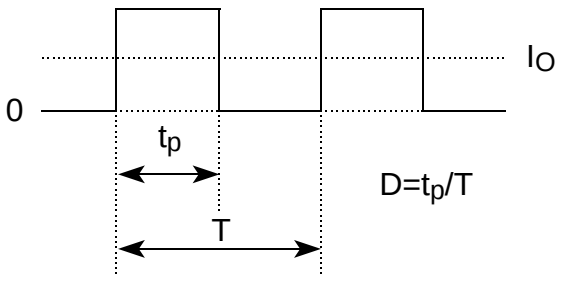
# SF20SC9 Forward Voltage



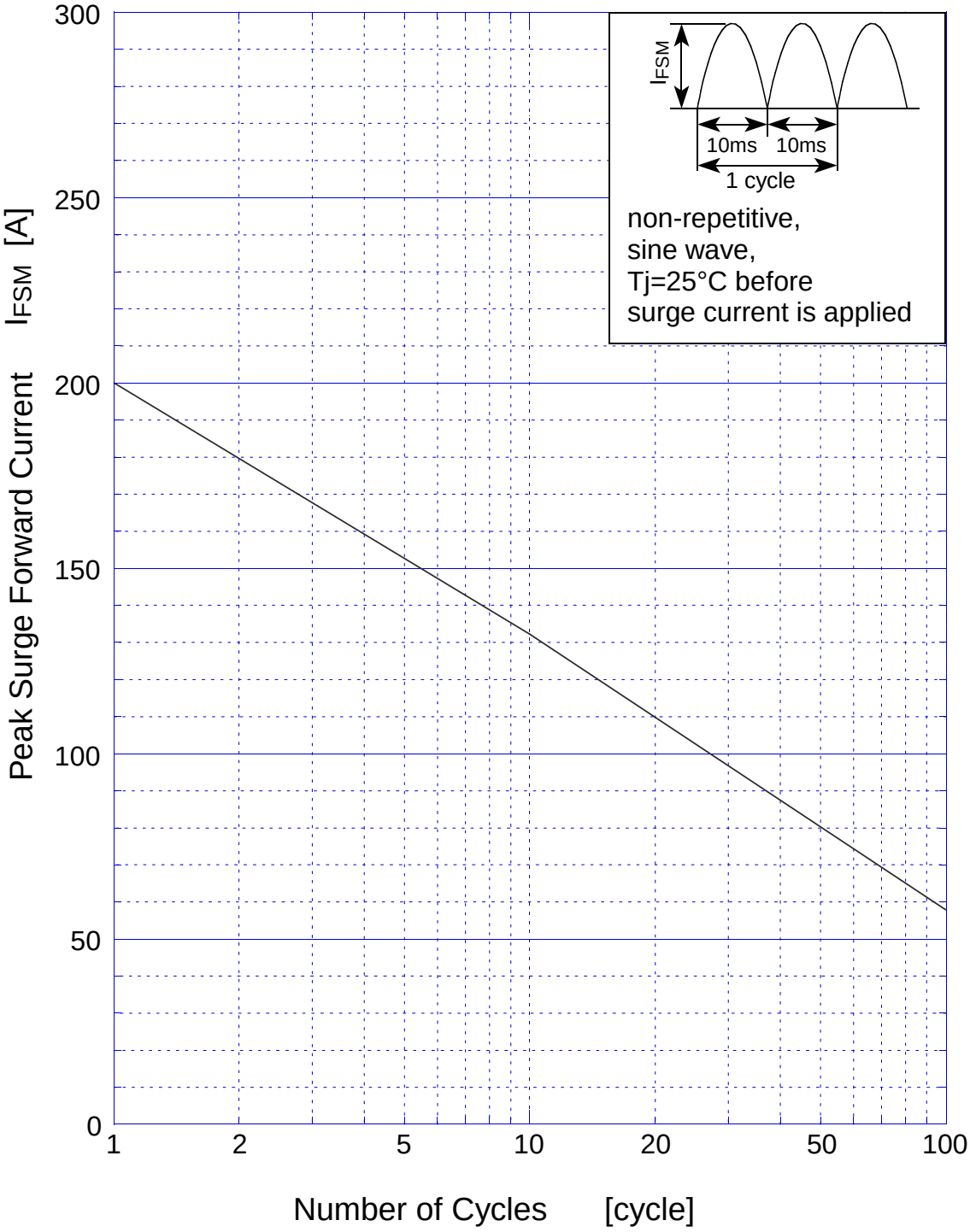
# SF20SC9 Forward Power Dissipation



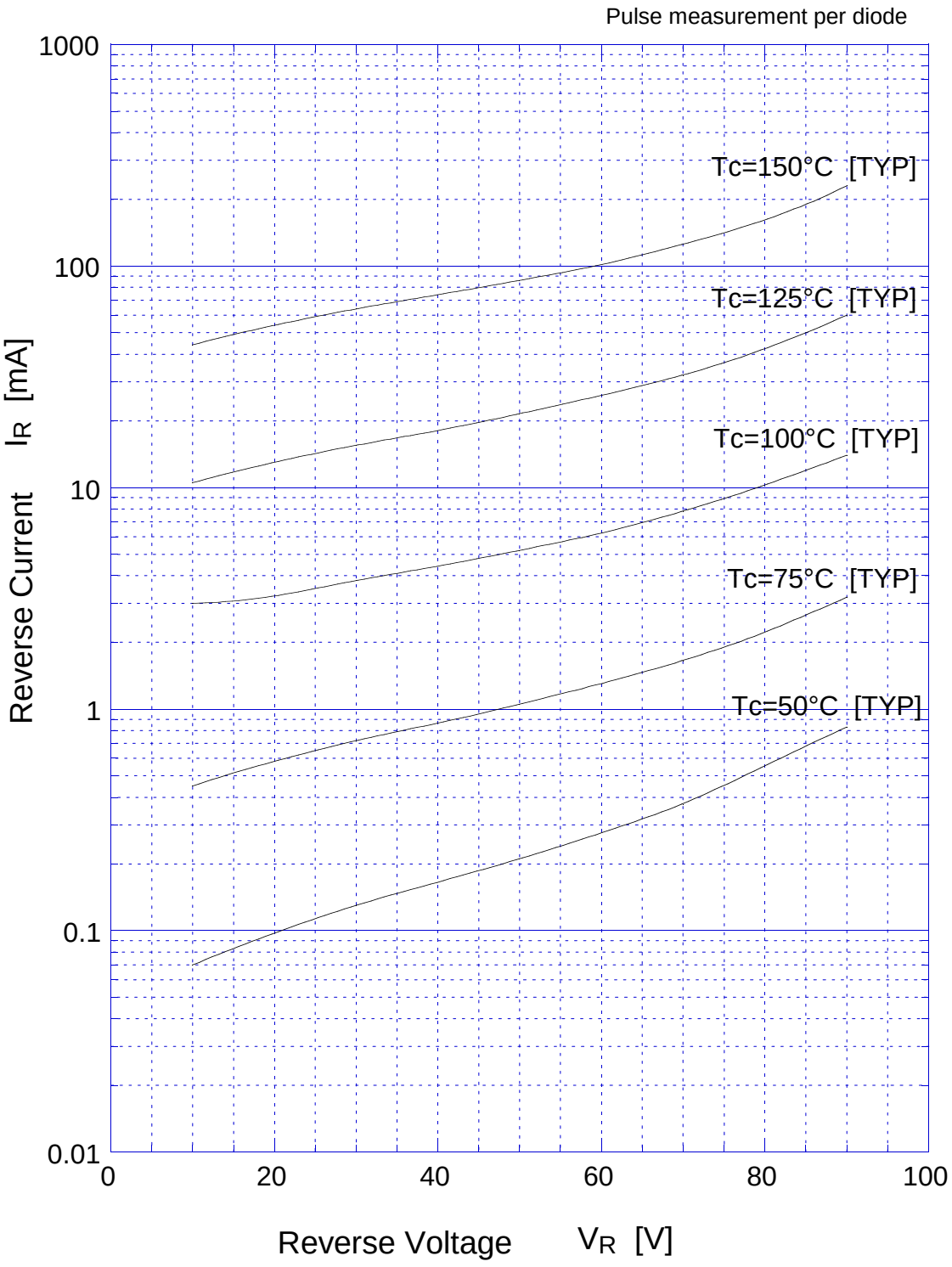

Tj =150°C



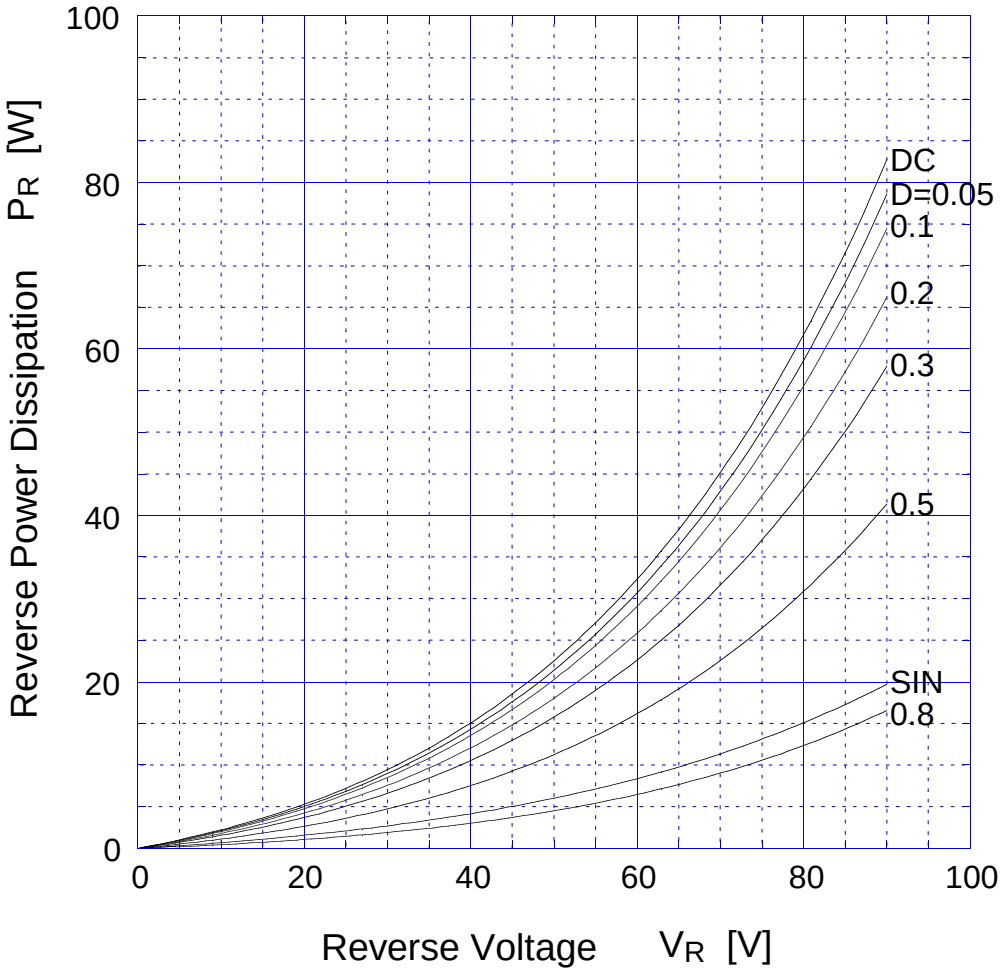
# SF20SC9 Peak Surge Forward Capability



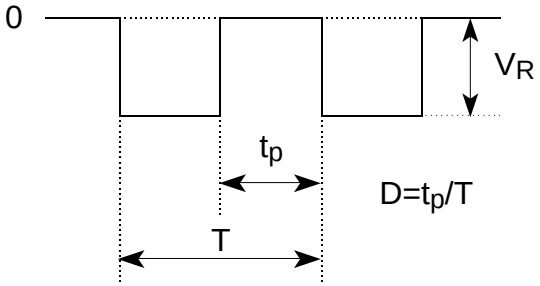
# SF20SC9 Reverse Current

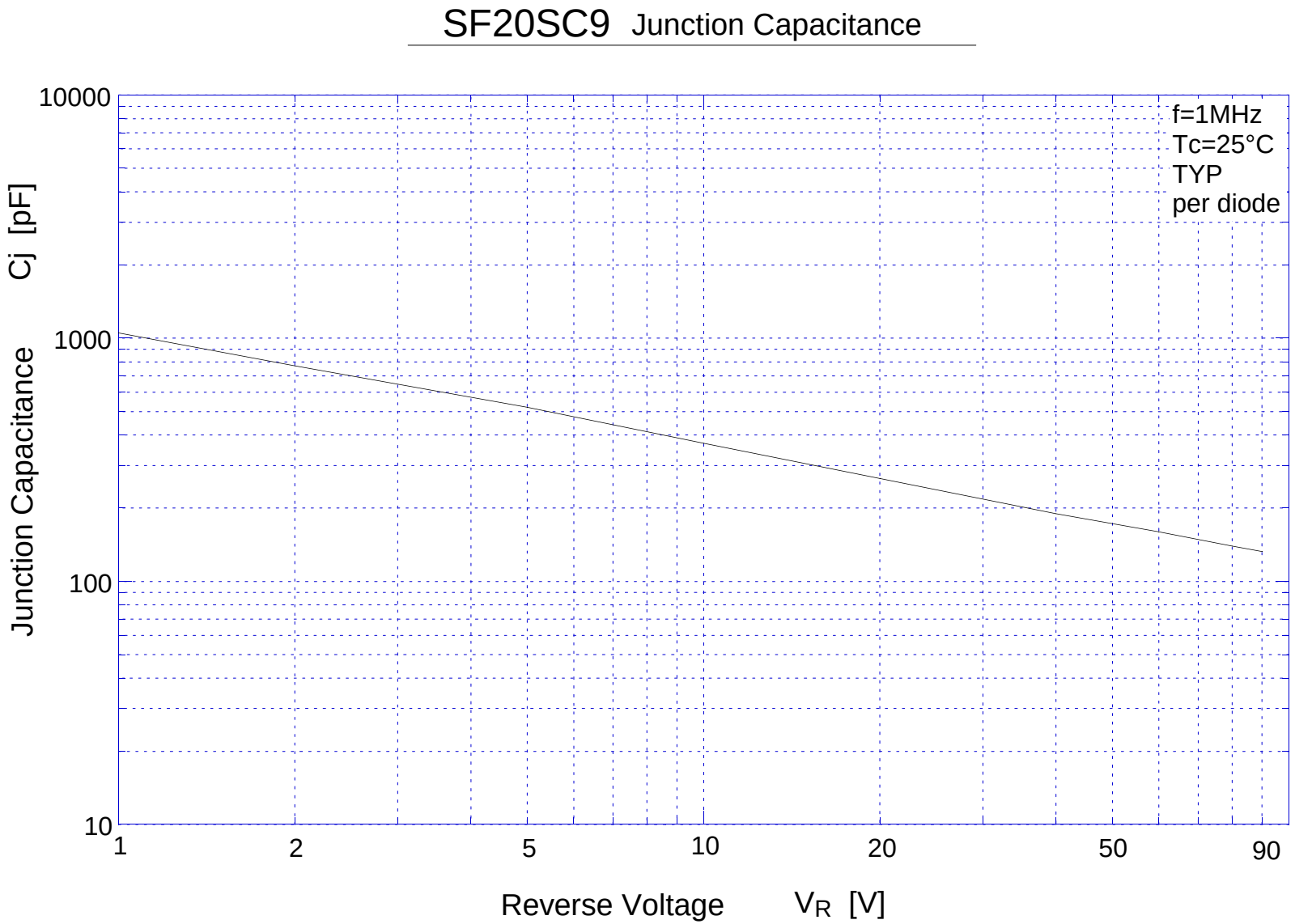


# SF20SC9 Reverse Power Dissipation

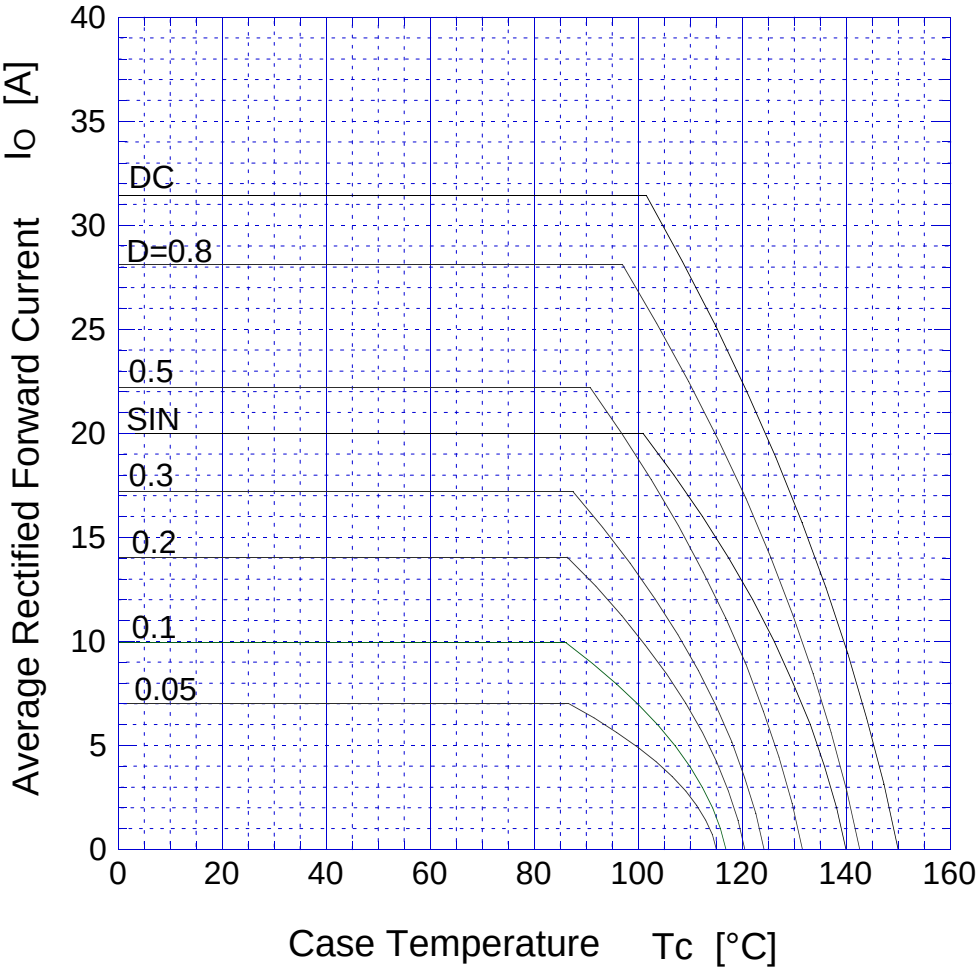



Tj =150°C




SF20SC9 Junction Capacitance
f=1MHz
Tc=25°C
TYP
per diode
Junction Capacitance Cj [pF]
10000
1000
100
10
1
2
5
10
20
50
90
Reverse Voltage VR [V]

# SF20SC9 Derating Curve




$V_R$ = 45V