

# SHINDENGEN

## Shottky Rectifiers (SBD)

Dual

# DF20JC10

## 100V 20A

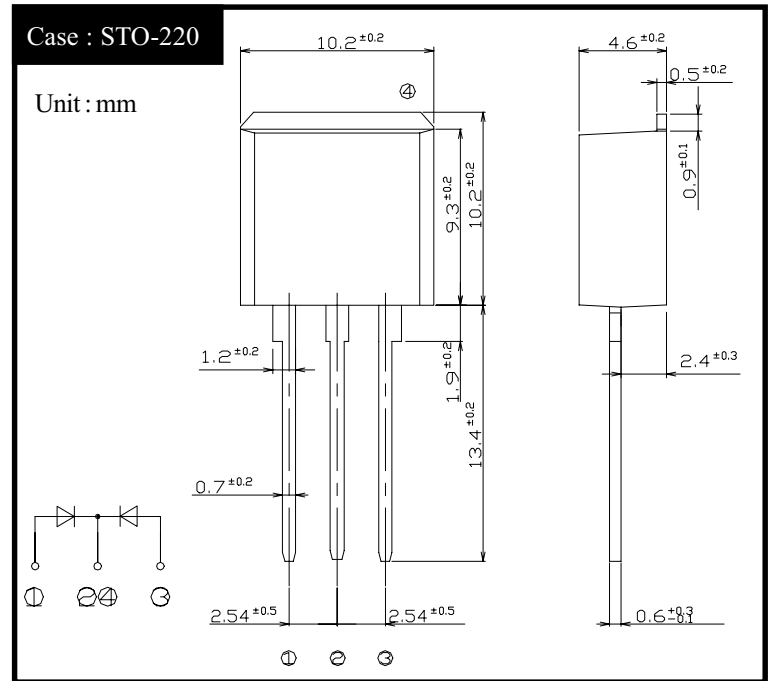
### FEATURES

1. Low IR
2. Avoid thermal runaway
3. Available in the STO-220 lead type and surface mount type

### APPLICATION

1. Secondary rectifiers in notebook PC, LCD power supplies and adapter
2. Secondary rectifiers in power supplies
3. DC/DC converter
4. Prevent reverse current of redundant power supplies

### OUTLINE DIMENSIONS



### RATINGS

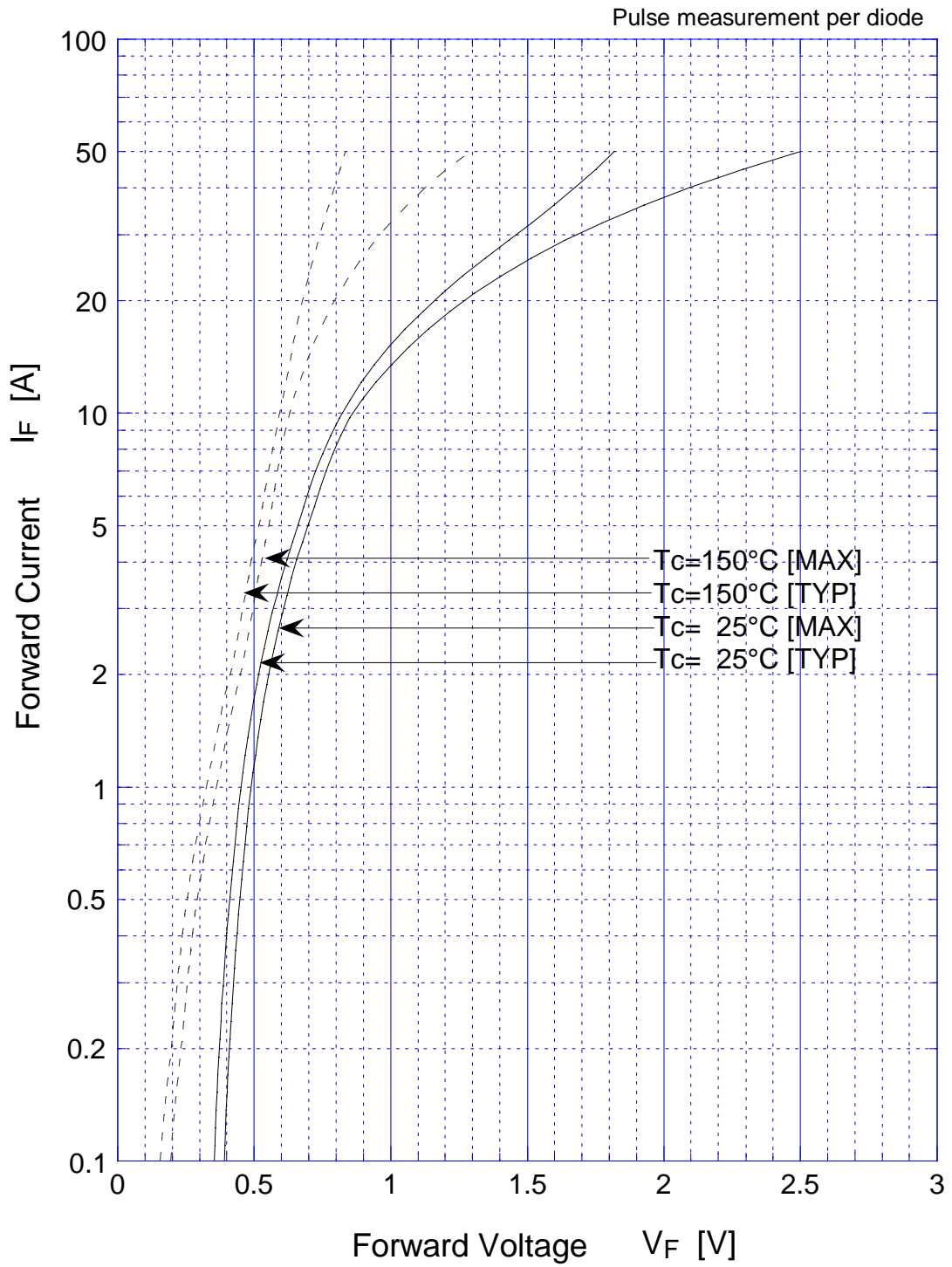
#### ● Absolute Maximum Ratings ( If not specified, $T_c=25^\circ\text{C}$ )

| Item                              | Symbol    | Conditions  | Ratings | Unit             |
|-----------------------------------|-----------|---|---------|------------------|
| Storage Temperature               | $T_{stg}$ |   | -55~150 | $^\circ\text{C}$ |
| Operating Junction Temperature    | $T_j$     |   | 150     | $^\circ\text{C}$ |
| Maximum Reverse Voltage           | $V_{RM}$  |   | 100     | V                |
| Average Rectified Forward Current | $I_O$     | 50Hz sine wave, R-load, Rating for each diode $I_o/2$ , $T_c=121^\circ\text{C}$ | 20      | A                |
| Peak Surge Forward Current        | $I_{FSM}$ | 50Hz sine wave, Non-repetitive 1cycle peak value, $T_j=25^\circ\text{C}$        | 200     | A                |

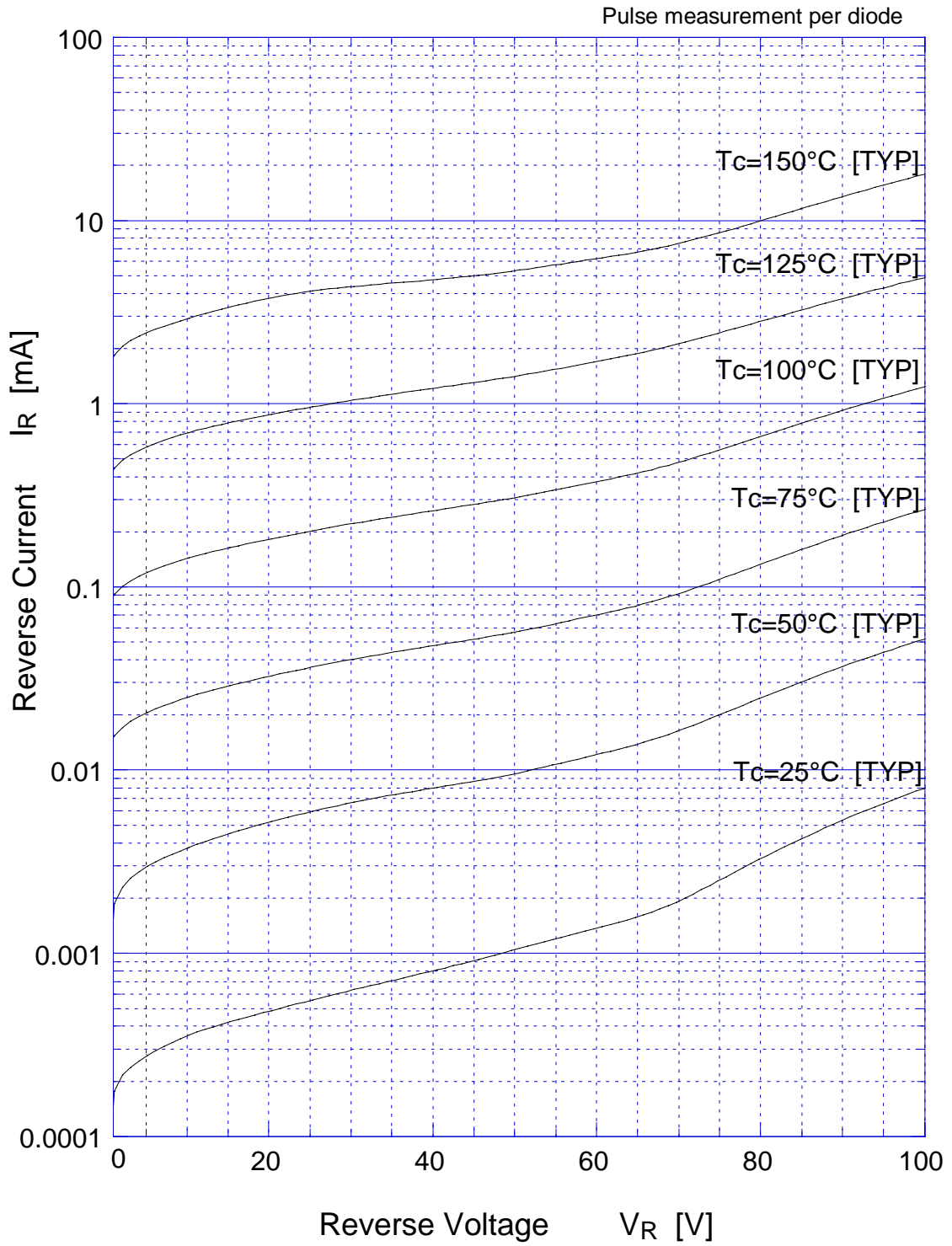
#### ● Electrical Characteristics ( If not specified, $T_c=25^\circ\text{C}$ )

| Item                 | Symbol        | Conditions  | Ratings  | Unit               |
|----------------------|---------------|---|----------|--------------------|
| Forward Voltage      | $V_F$         | $I_F=10\text{A}$ , Pulse measurement, Rating of per diode | Max 0.86 | V                  |
| Reverse Current      | $I_R$         | $V_R=V_{RM}$ , Pulse measurement, Rating of per diode     | Max 0.7  | mA                 |
| Junction Capacitance | $C_j$         | $f=1\text{MHz}$ , $V_R=10\text{V}$                        | TYP 260  | pF                 |
| Thermal Resistance   | $\theta_{jc}$ | junction to case  | Max 1.6  | $^\circ\text{C/W}$ |

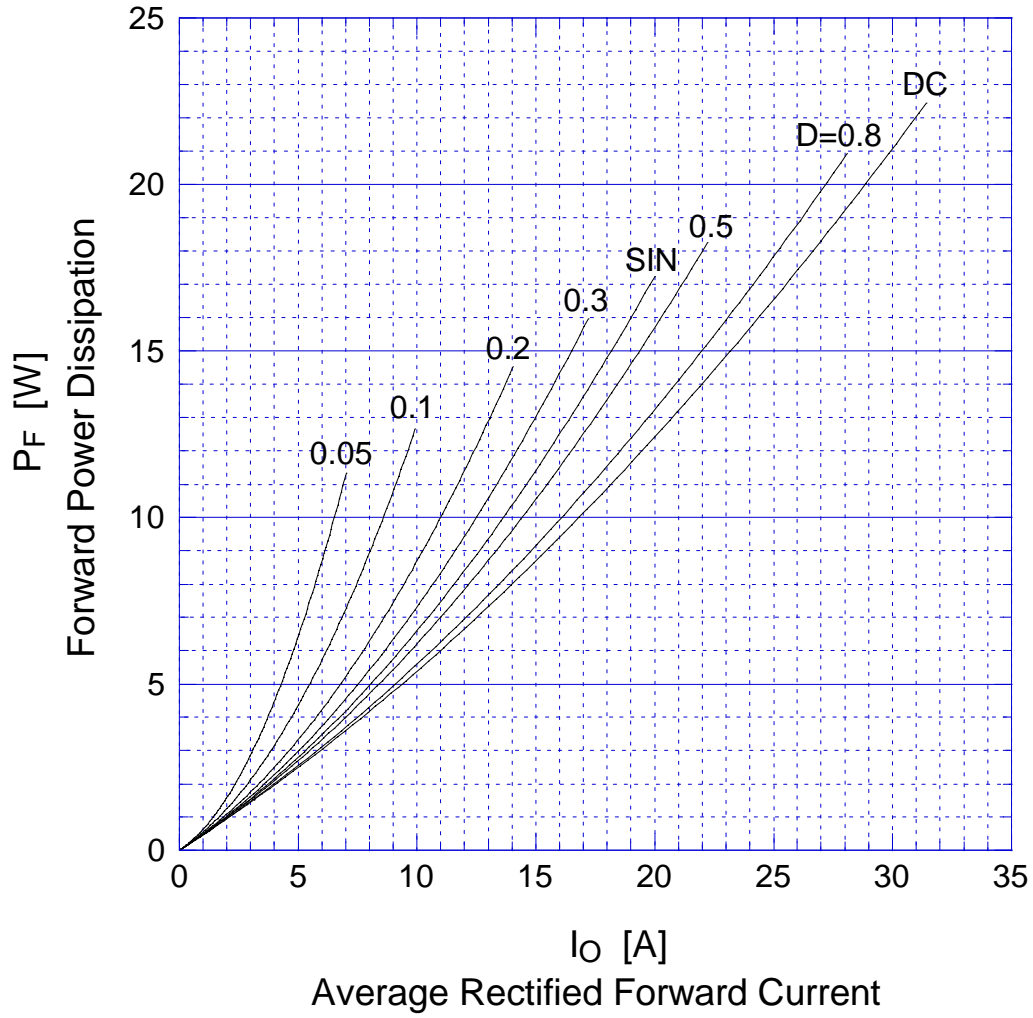
# DF20JC10 Forward Voltage



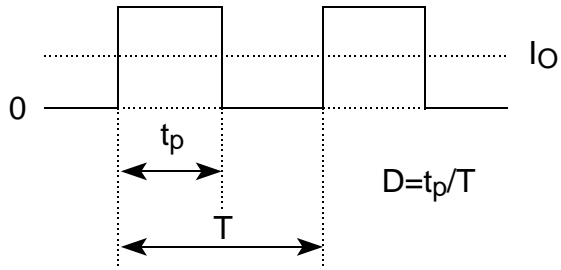
# DF20JC10 Reverse Current



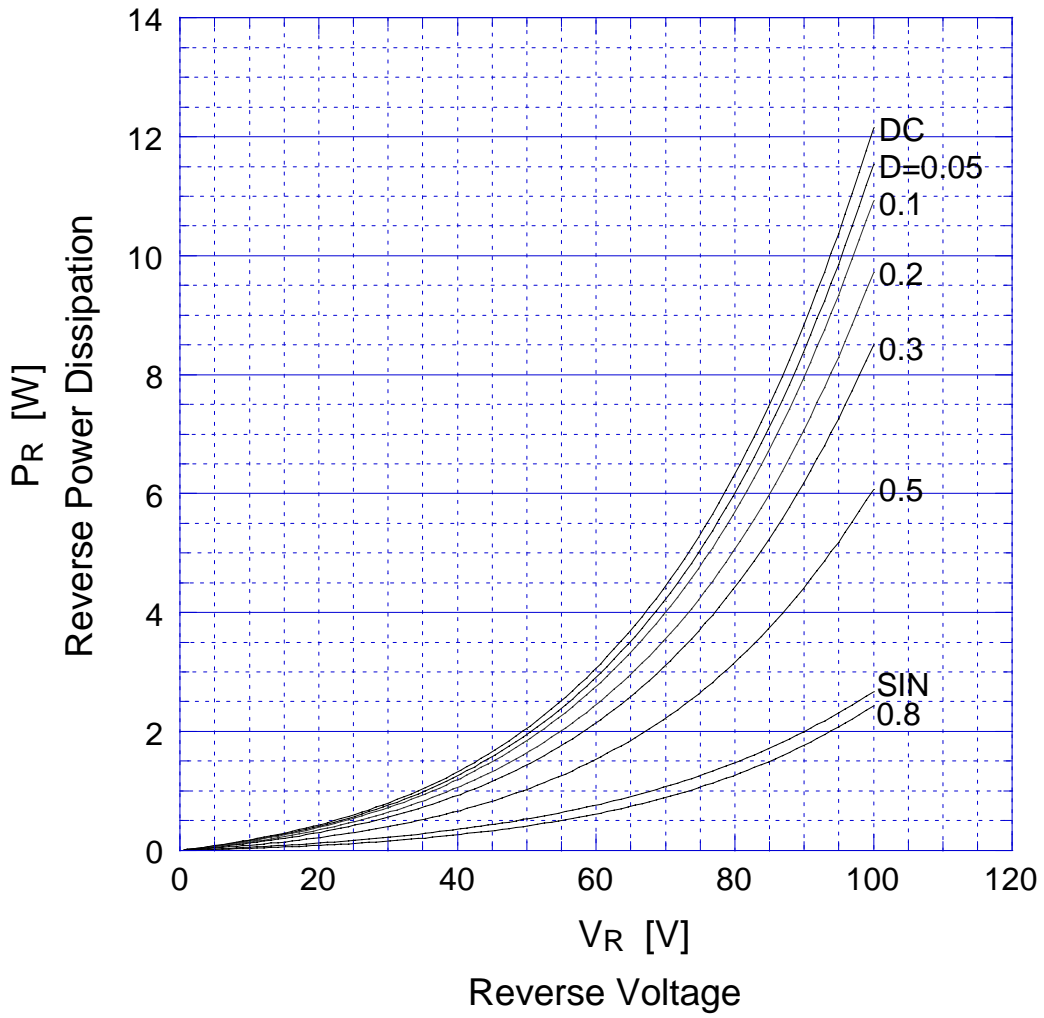
# DF20JC10 Forward Power Dissipation



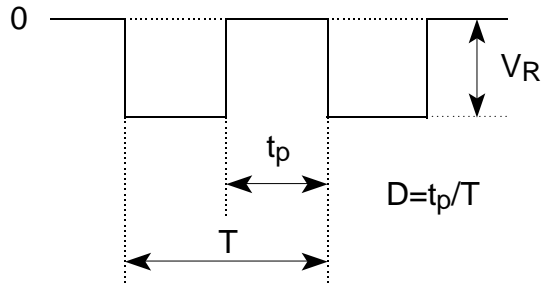
$T_j = 150^\circ\text{C}$



# DF20JC10 Reverse Power Dissipation

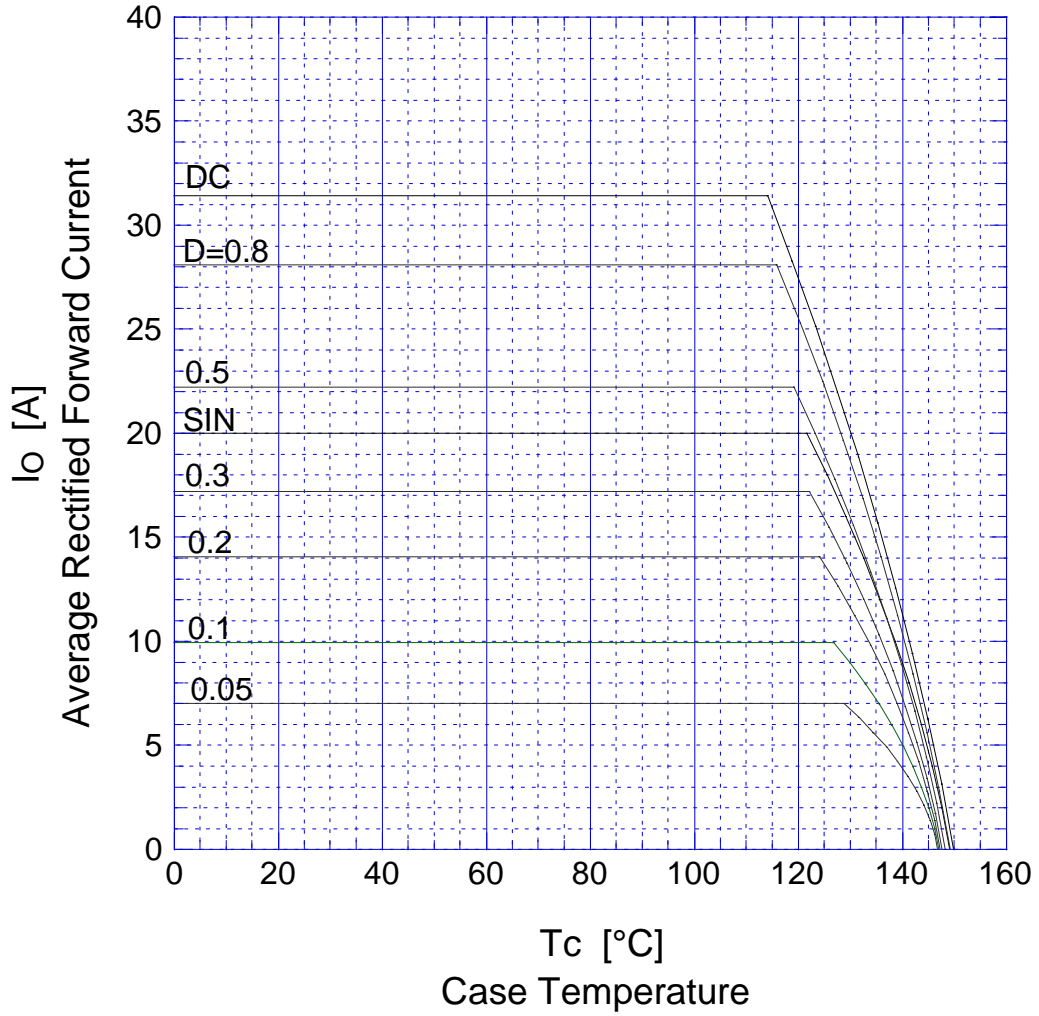


$T_j = 150^\circ\text{C}$

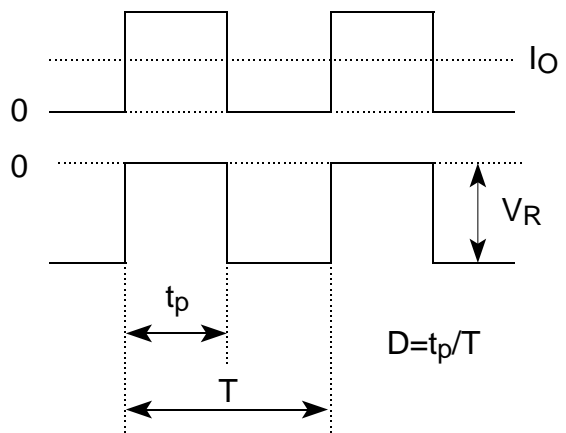


# DF20JC10

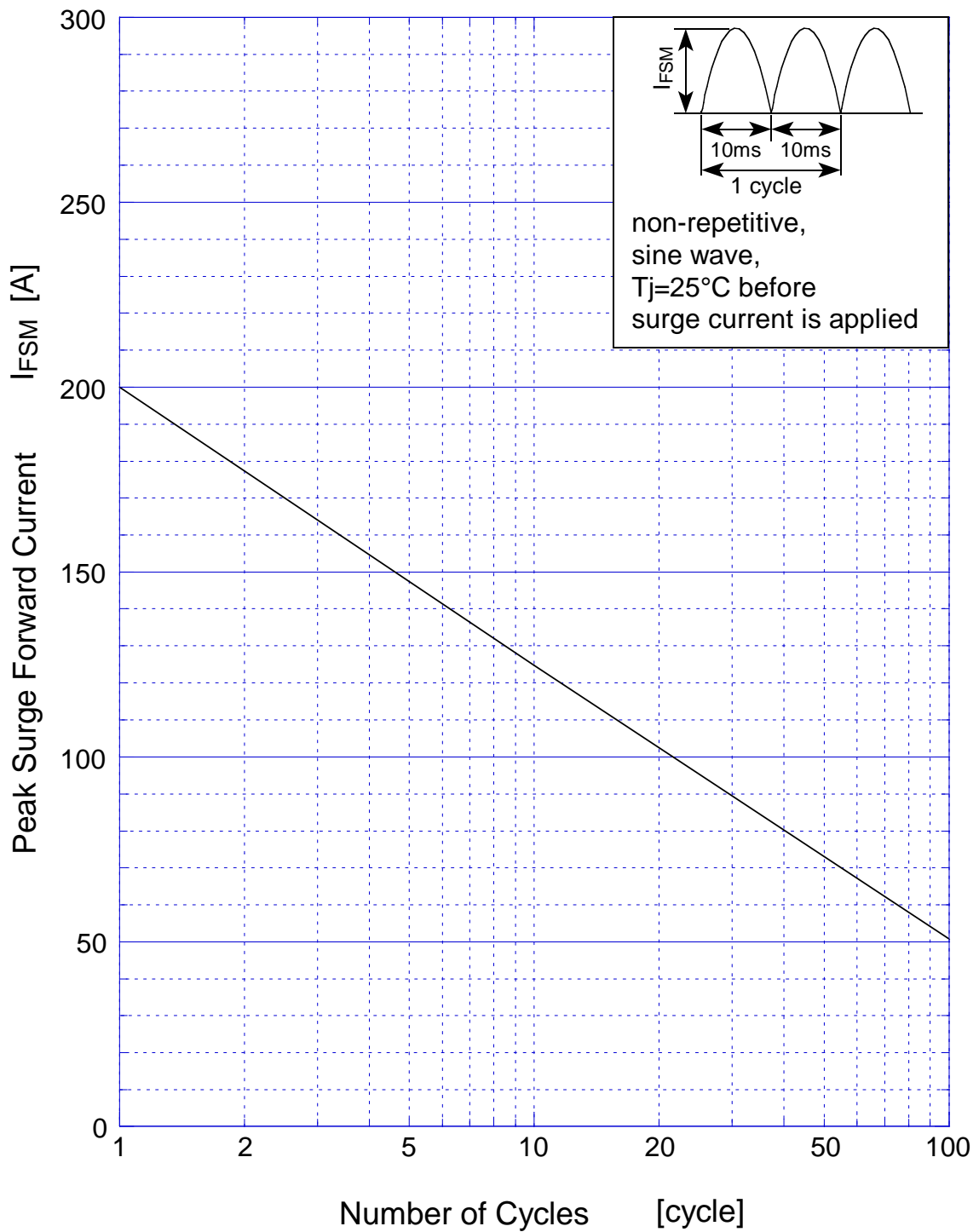
# Derating Curve



$V_R = 50V$



# DF20JC10 Peak Surge Forward Capability



# DF20JC10 Junction Capacitance

