# SHINDENGEN

## Super Fast Recovery Rectifiers

**Single**

# SF5L60

**600V 5A**

## FEATURES

- High voltage
- trr50ns
- Fully Isolated Molding
- Dielectric strength 2kV guaranteed

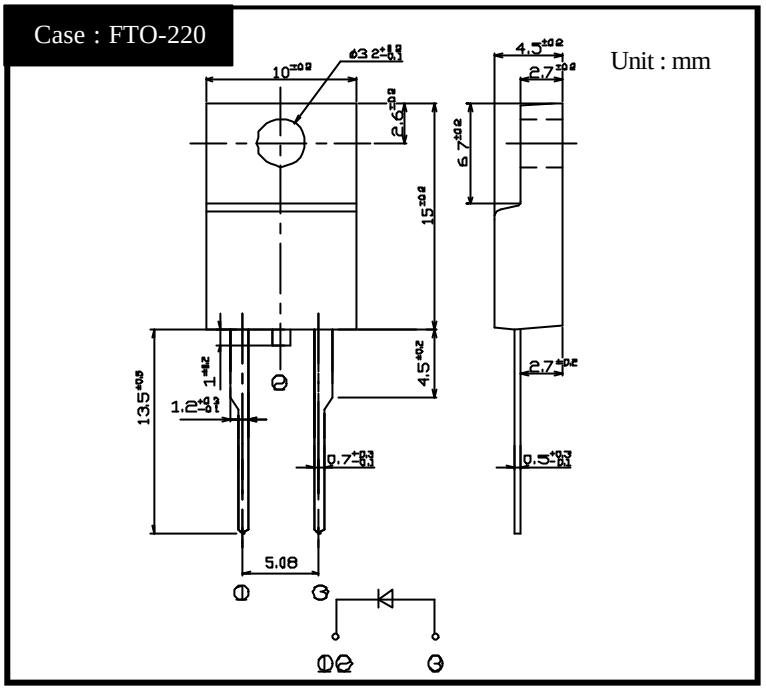
## APPLICATION

- PFC
- Switching power supply
- Free Wheel
- CTV+B output, lighting

## OUTLINE DIMENSIONS

Case : FTO-220

Unit : mm



## RATINGS

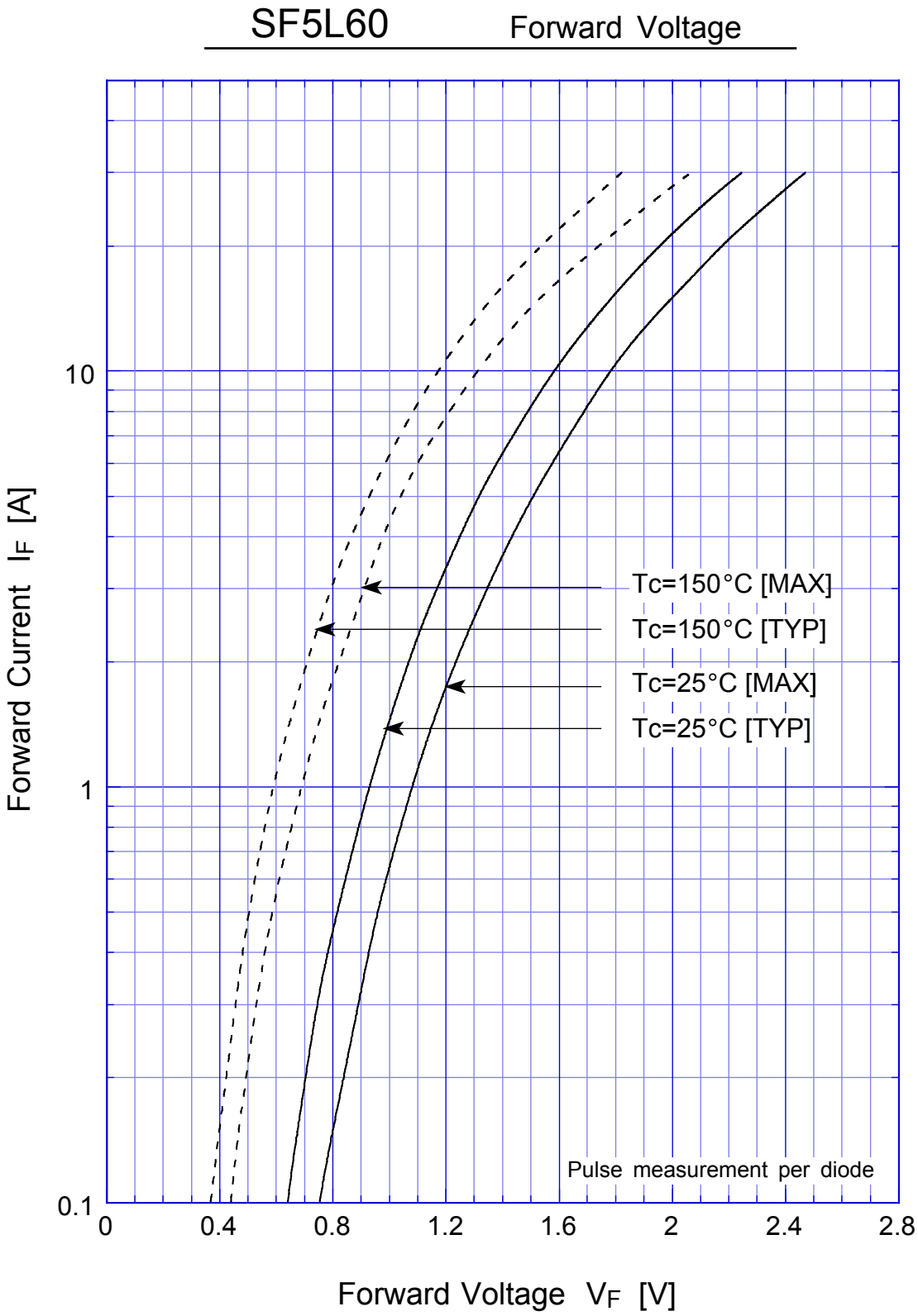
●Absolute Maximum Ratings (If not specified Tc=25°C)

| Item | Symbol | Conditions | Ratings | Unit |
|---|---|---|---|---|
| Storage Temperature | Tstg | | -55～150 | °C |
| Operating Junction Temperature | Tj | | 150 | °C |
| Maximum Reverse Voltage | $V_{RM}$ | | 600 | V |
| Average Rectified Forward Current | Io | 50Hz sine wave, R-load, Tc=131°C | 5 | A |
| Peak Surge Forward Current | $I_{FSM}$ | 50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C | 100 | A |
| Dielectric Strength | Vdis | Terminals to case, AC 1 minute | 2 | kV |
| Mounting Torque | TOR | (Recommended torque 0.3N･m) | 0.5 | N･m |

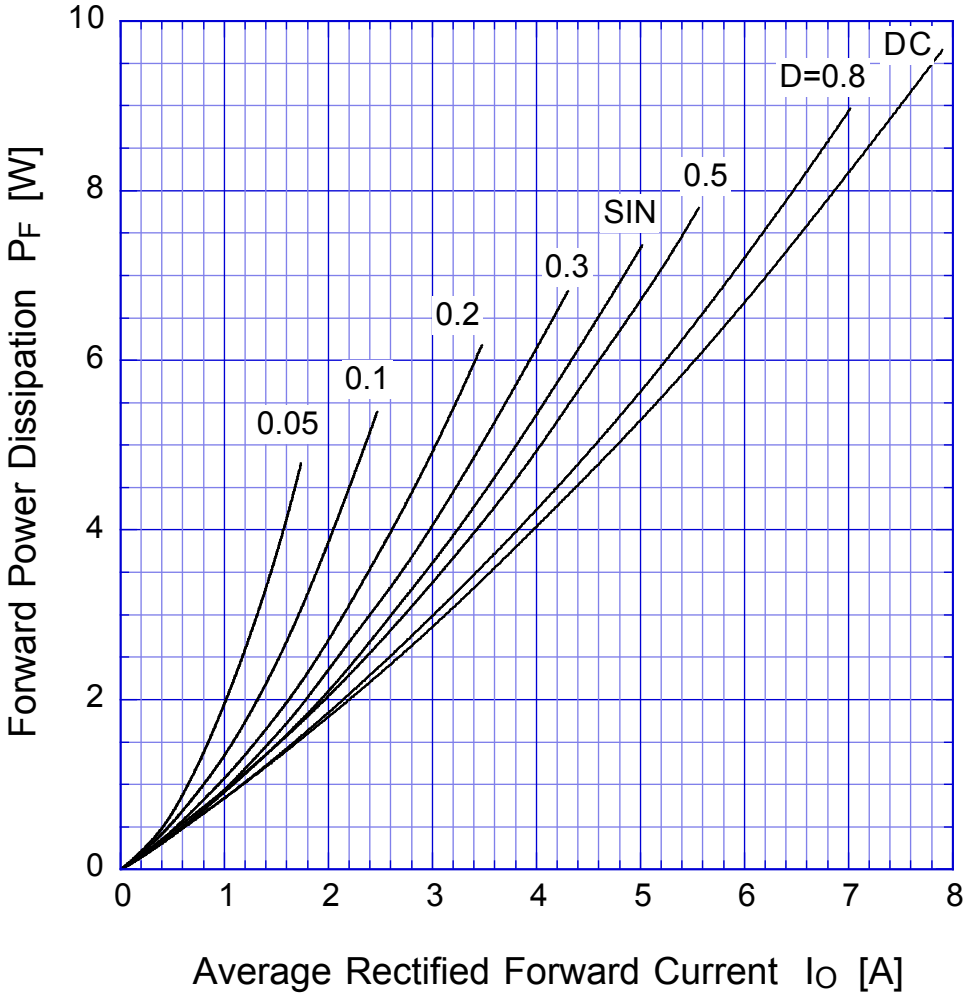
●Electrical Characteristics (If not specified Tc=25°C)

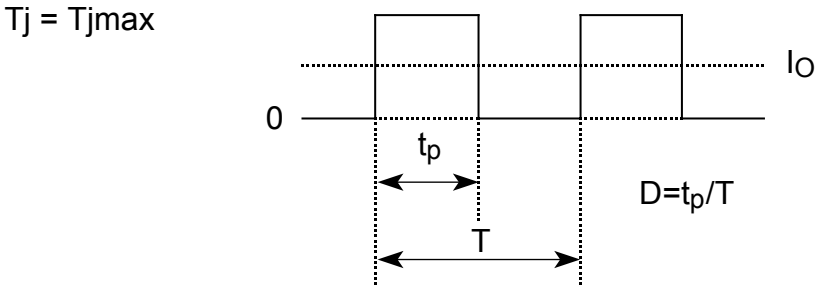
| Item | Symbol | Conditions | Ratings | Unit |
|---|---|---|---|---|
| Forward Voltage | $V_F$ | $I_F$=5A, Pulse measurement | Max.1.5 | V |
| Reverse Current | $I_R$ | $V_R=V_{RM}$, Pulse measurement | Max.10 | μA |
| Reverse Recovery Time | trr | $I_F$=0.5A, $I_R$=1A | Max.50 | ns |
| Thermal Resistance | θjc | junction to case | Max.2.5 | °C/W |

Copyright & Copy;2000 Shindengen Electric Mfg.Co.Ltd

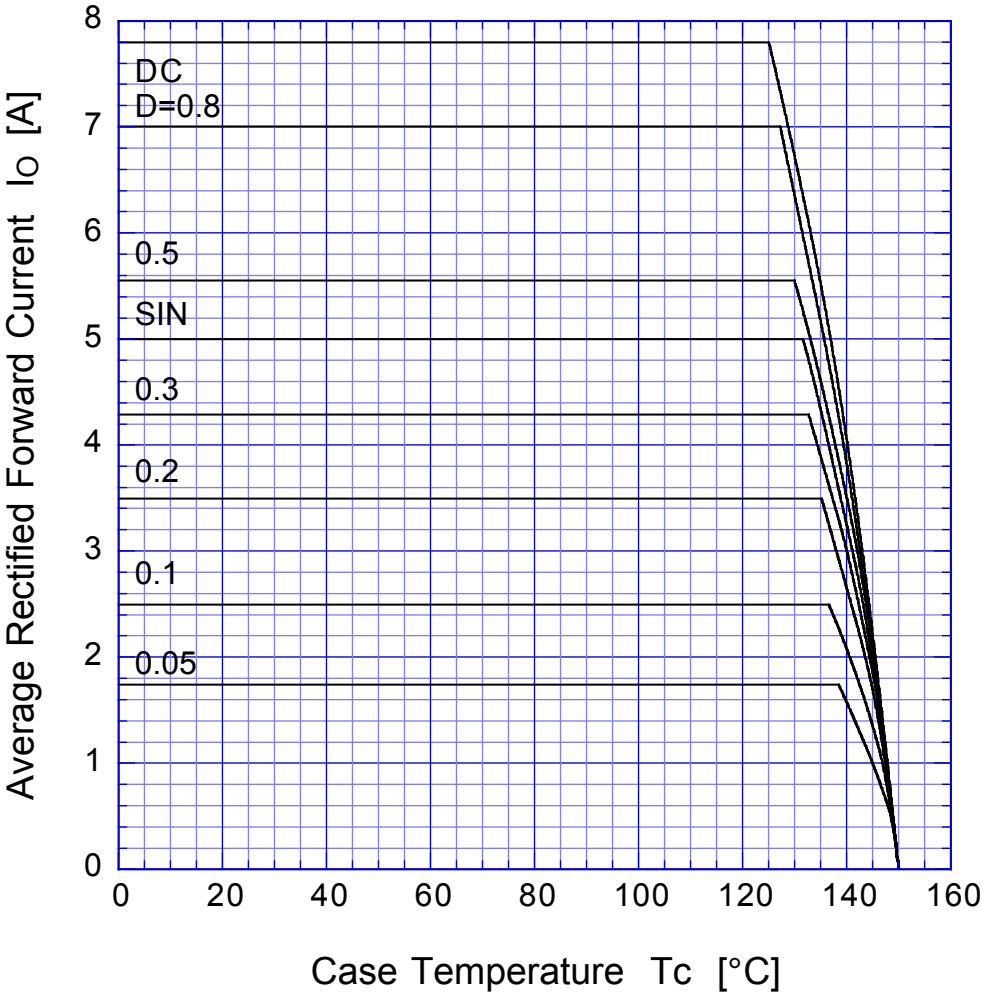

SF5L60
Forward Voltage
Forward Current IF [A]
10
1
0.1
0
0.4
0.8
1.2
1.6
2
2.4
2.8
Forward Voltage VF [V]
Tc=150°C [MAX]
Tc=150°C [TYP]
Tc=25°C [MAX]
Tc=25°C [TYP]
Pulse measurement per diode

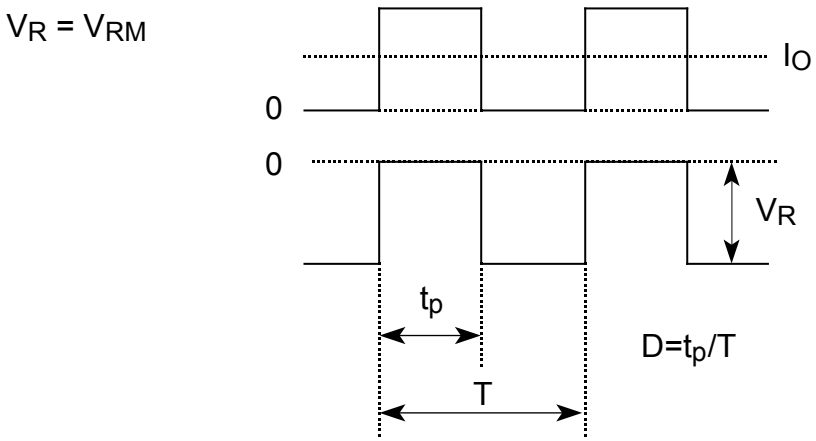
## SF5L60 Forward Power Dissipation



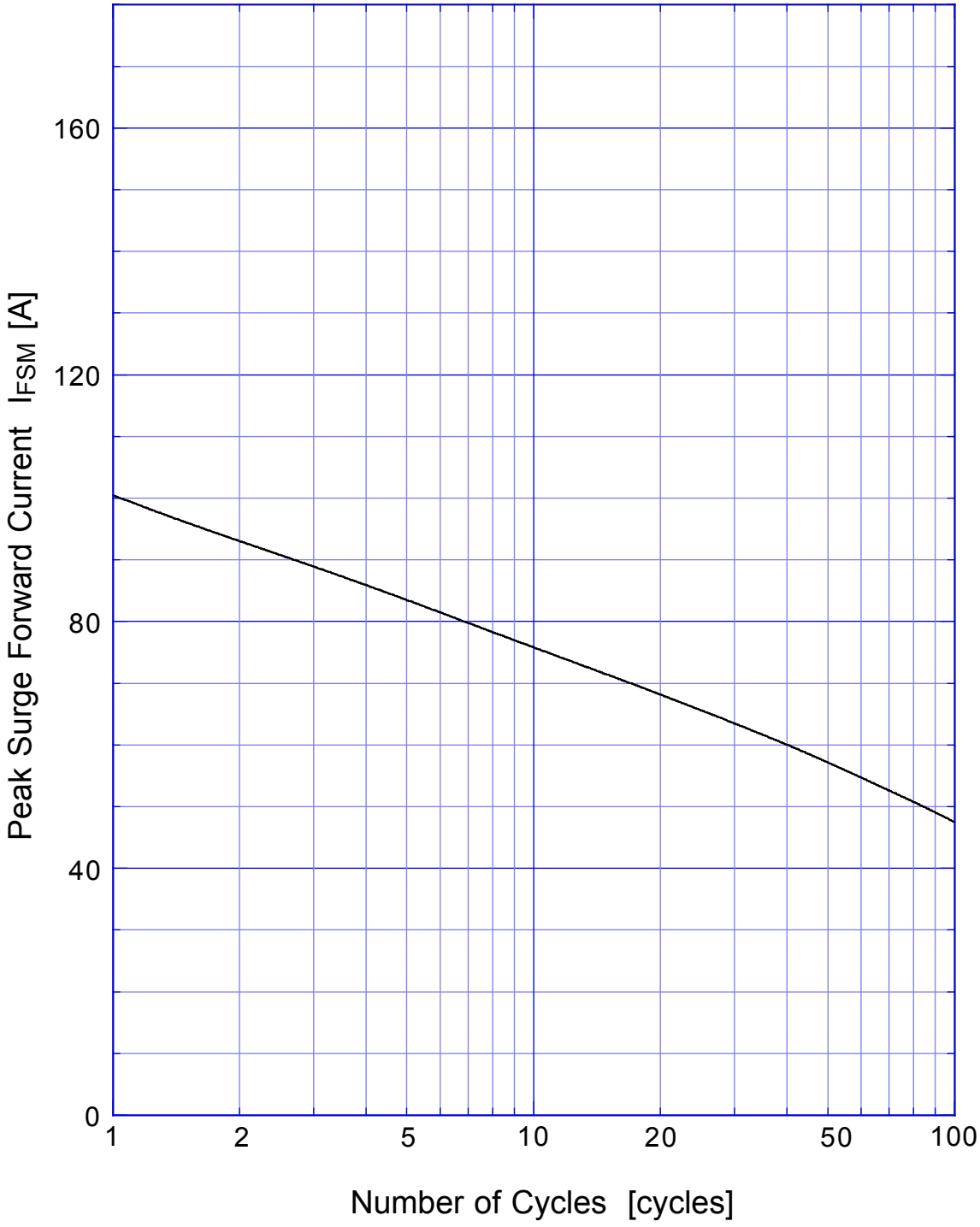



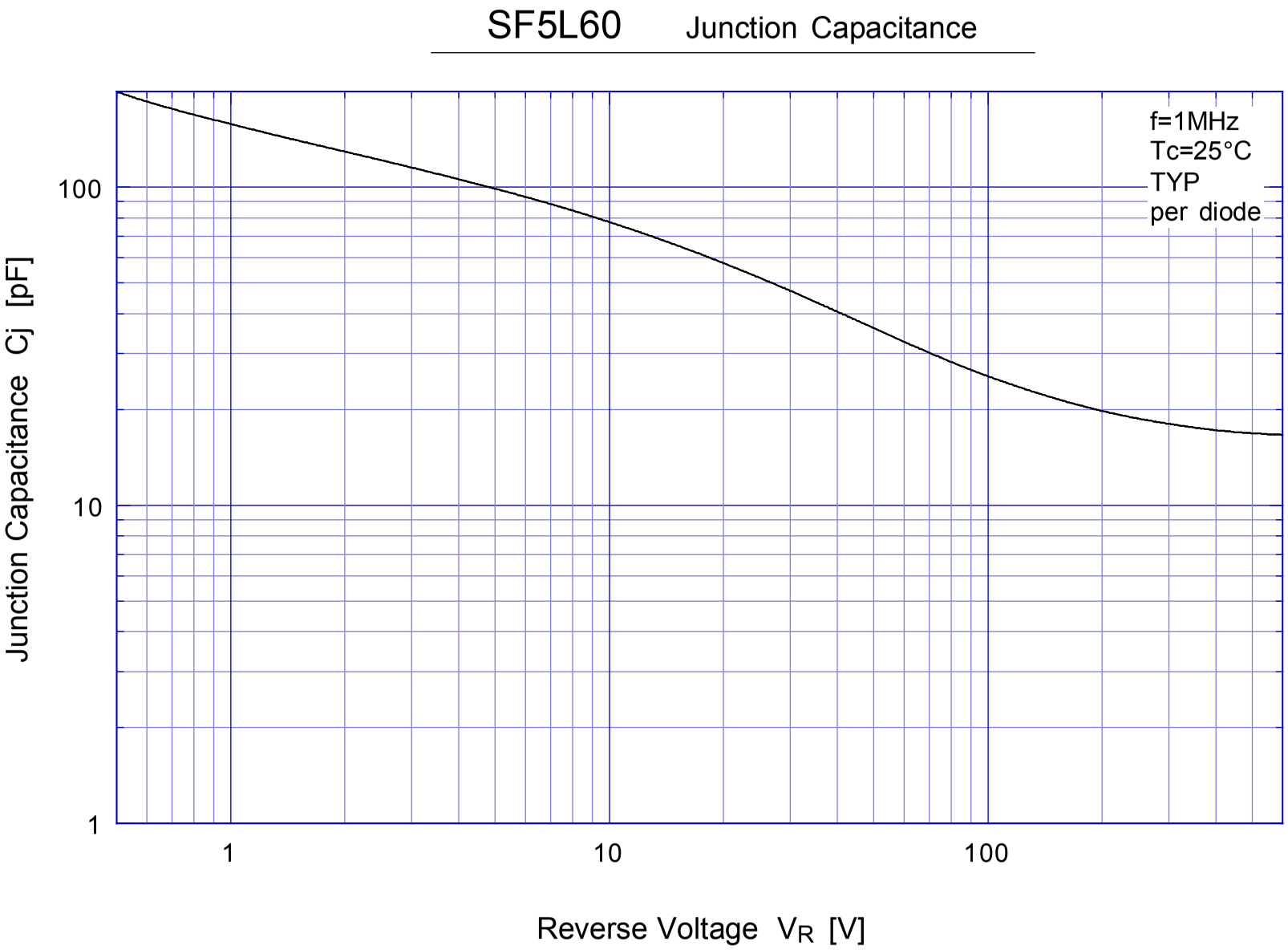
# SF5L60 Derating Curve



SF5L60 Peak Surge Forward Capability




SF5L60 Junction Capacitance
f=1MHz
Tc=25°C
TYP
per diode
100
10
1
1
10
100
Junction Capacitance Cj [pF]
Reverse Voltage VR [V]