

SHINDENGEN

Super Fast Recovery Rectifiers

Single

SF5L30

300V 5A

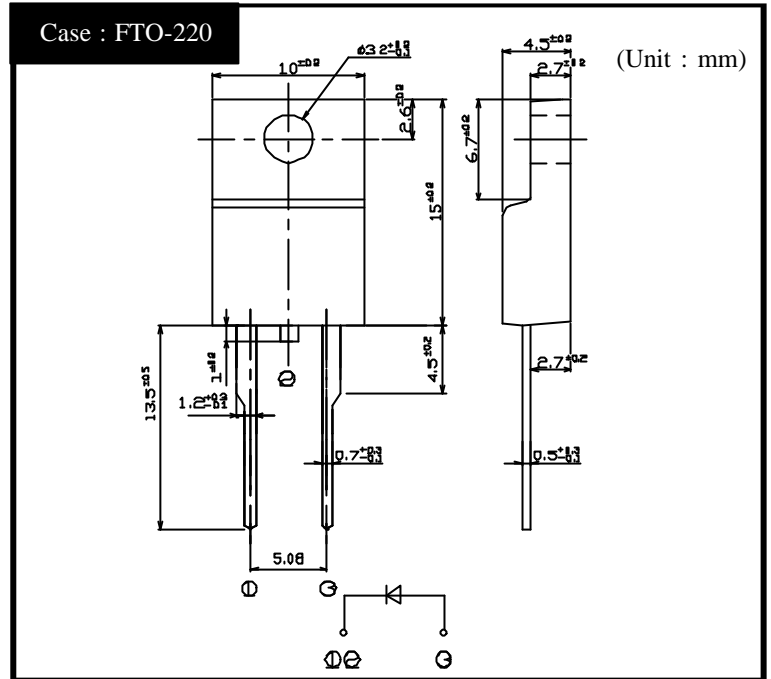
FEATURES

- trr30ns
- Fully Isolated Molding
- Dielectric strength 2kV guaranteed

APPLICATION

- Switching power supply
- Free Wheel
- Home Appliances, Office Equipment
- Telecommunication, Factory Automation

OUTLINE DIMENSIONS



RATINGS

Absolute Maximum Ratings (If not specified Tc=25)

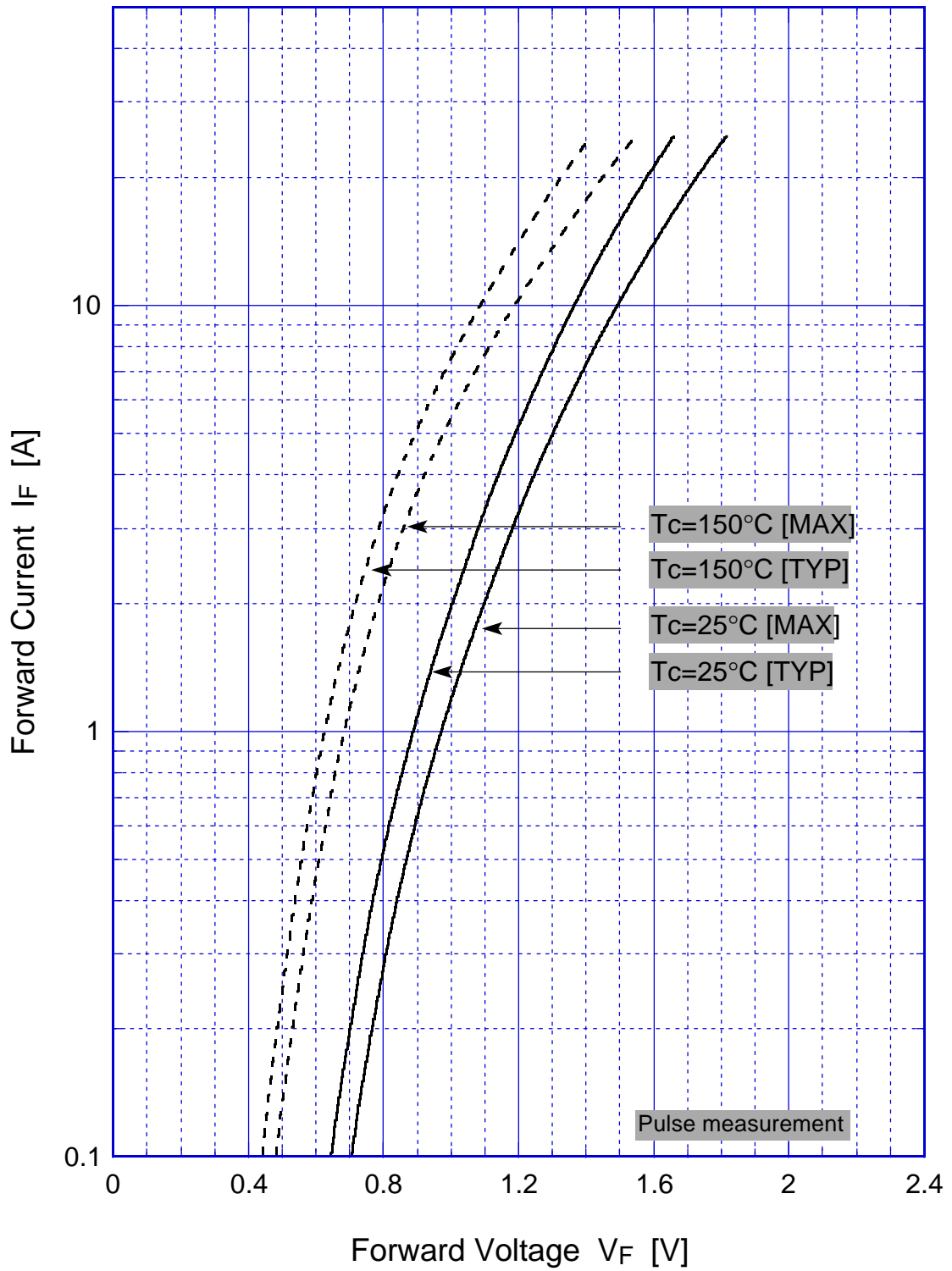
| Item | Symbol | Conditions | Ratings | Unit |
|-----------------------------------|------------------|--|-----------|------|
| Storage Temperature | Tstg | | -55 ~ 150 | |
| Operating Junction Temperature | Tj | | 150 | |
| Maximum Reverse Voltage | V _{RM} | | 300 | V |
| Average Rectified Forward Current | I _O | 50Hz sine wave, R-load, Tc=130 | 5 | A |
| Peak Surge Forward Current | I _{FSM} | 50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25 | 60 | 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)

| Item | Symbol | Conditions | Ratings | Unit |
|-----------------------|----------------|---|---------|------|
| Forward Voltage | V _F | I _F =5A, Pulse measurement | Max.1.3 | V |
| Reverse Current | I _R | V _R =V _{RM} , Pulse measurement | Max.25 | μA |
| Reverse Recovery Time | trr | I _F =0.5A, k=1A | Max.30 | ns |
| Junction Capacitance | Cj | f=1MHz, V _R =10V | TYP 50 | pF |
| Thermal Resistance | θc | junction to case | Max.3.4 | /W |

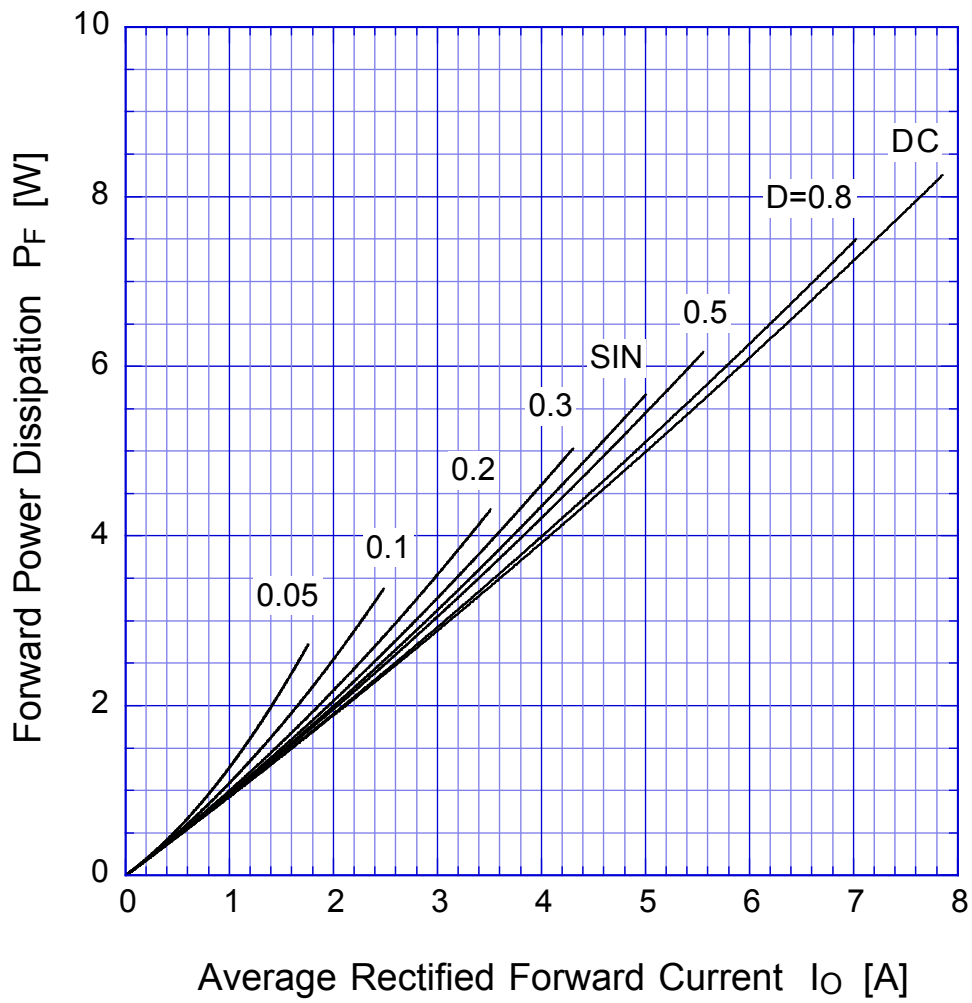
SF5L30

Forward Voltage

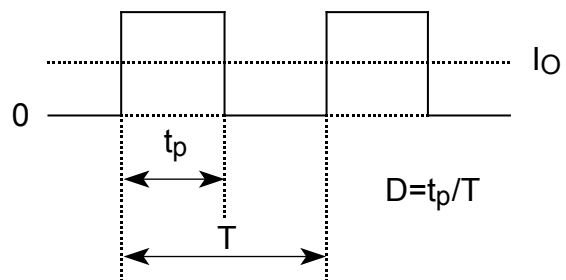


SF5L30

Forward Power Dissipation

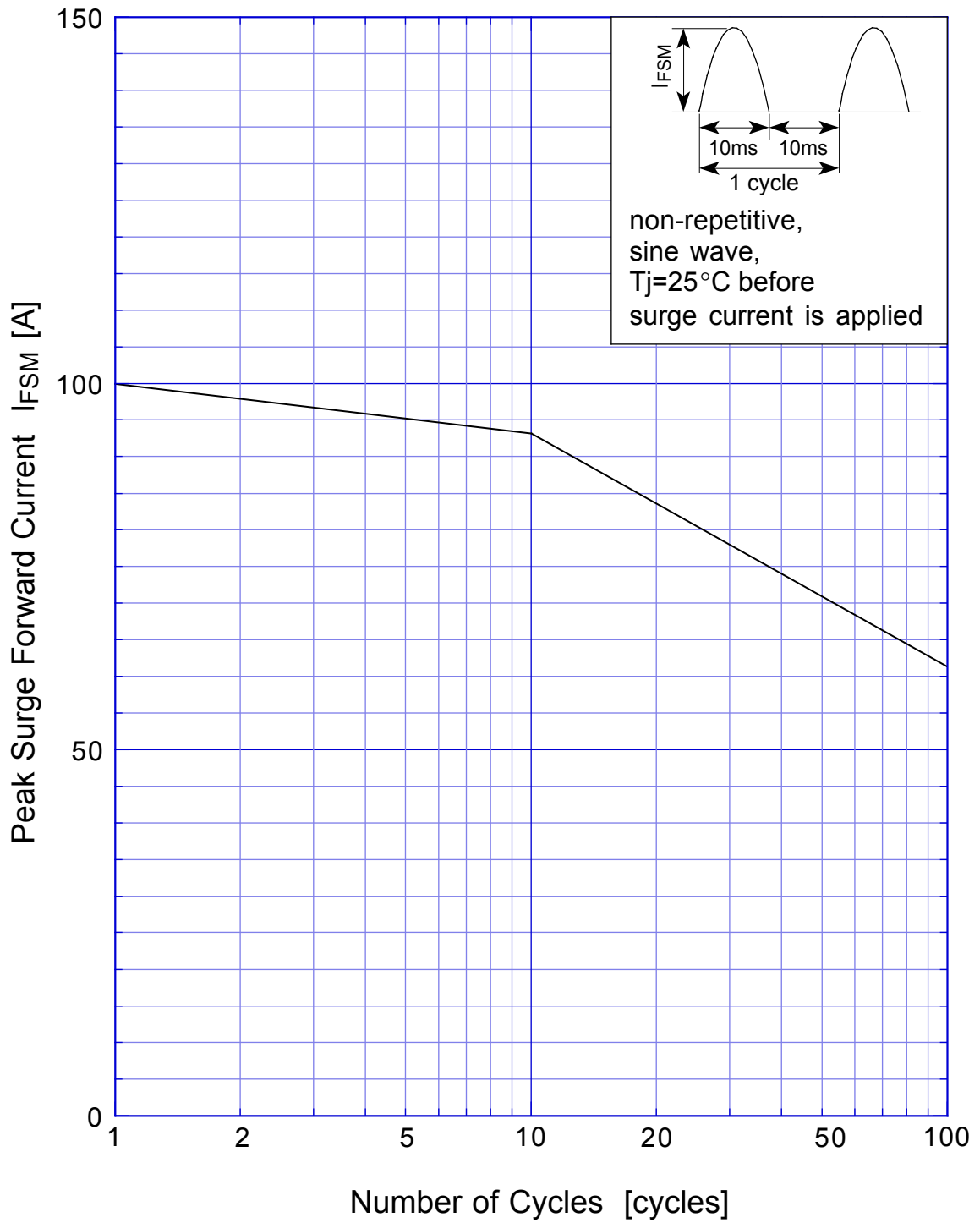


$T_j = 150^\circ\text{C}$



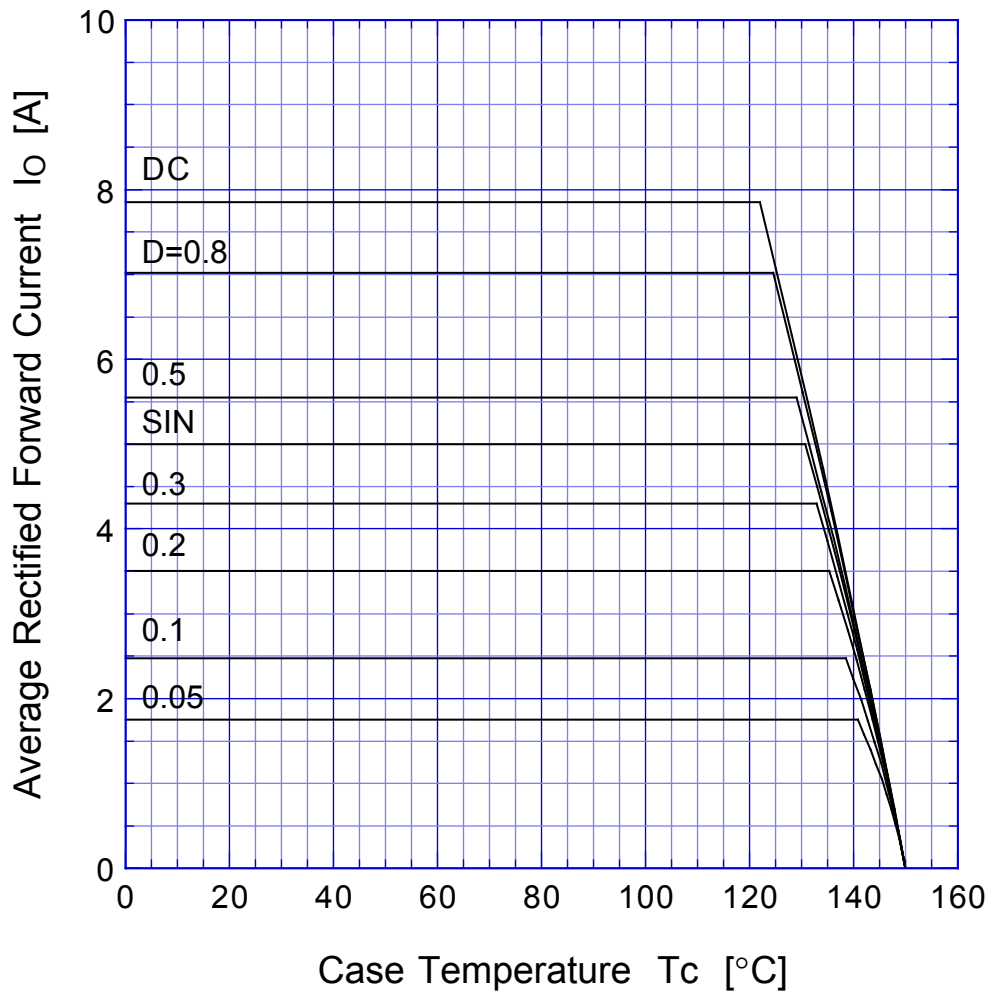
SF5L30

Peak Surge Forward Capability



SF5L30

Derating Curve



$$V_R = V_{RM}$$



SF5L30 Junction Capacitance

