

SHINDENGEN

Super Fast Recovery Rectifiers

Dual

DF20LC30

300V 20A

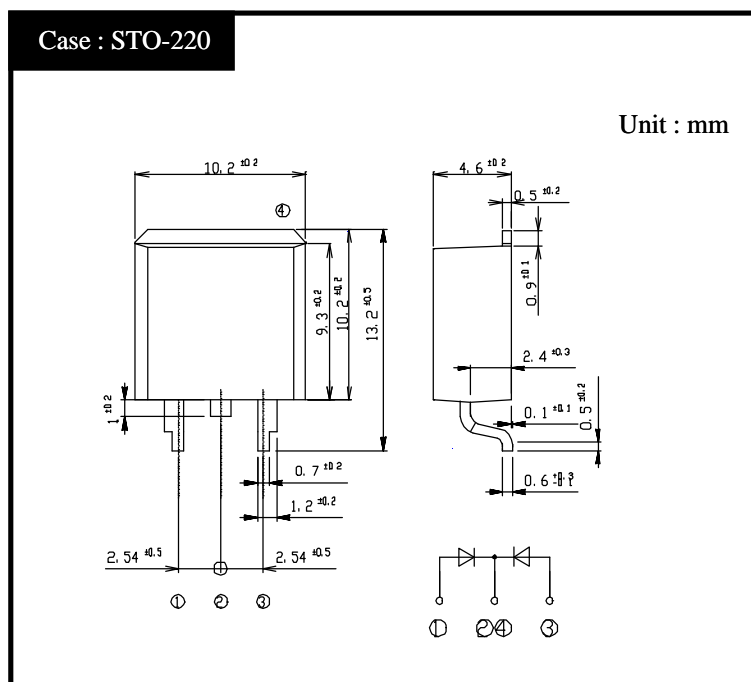
FEATURES

SMT
Low noise
trr30ns

APPLICATION

Switching power supply
DC/DC converter
Free Wheel
Home Appliances, Office Equipment
Telecommunication, Factory Automation

OUTLINE DIMENSIONS



RATINGS

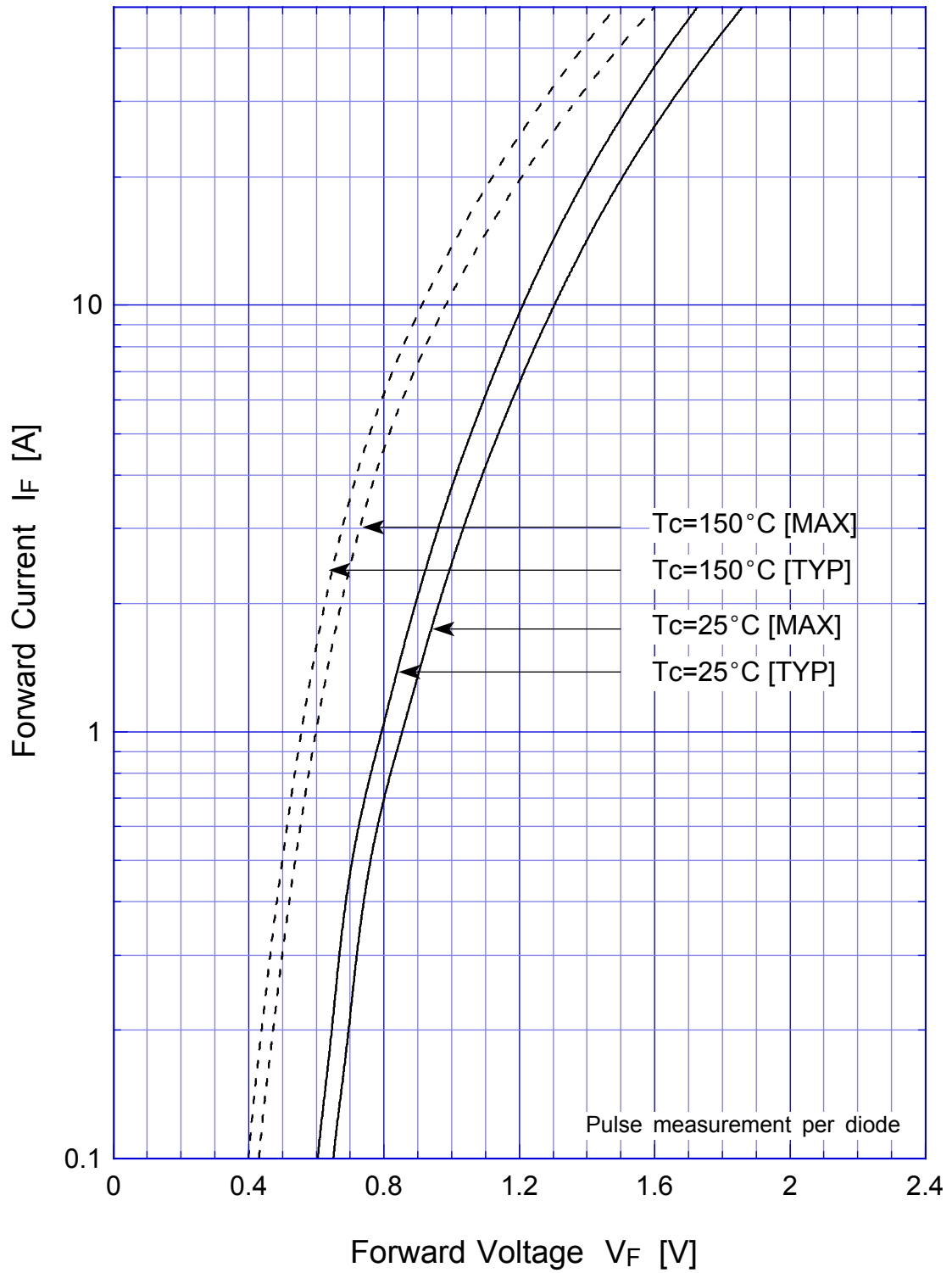
Absolute Maximum Ratings (If not specified $T_c=25$)

| Item | Symbol | Conditions | Ratings | Unit |
|-----------------------------------|-----------|---|-----------|------|
| Storage Temperature | T_{stg} | | -55 ~ 150 | |
| Operating Junction Temperature | T_j | | 150 | |
| Maximum Reverse Voltage | V_{RM} | | 300 | V |
| Average Rectified Forward Current | I_O | 50Hz sine wave, R-load, Rating for each diode $I_o/2$, $T_c=124$ | 20 | A |
| Peak Surge Forward Current | I_{FSM} | 50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=25$ | 180 | A |

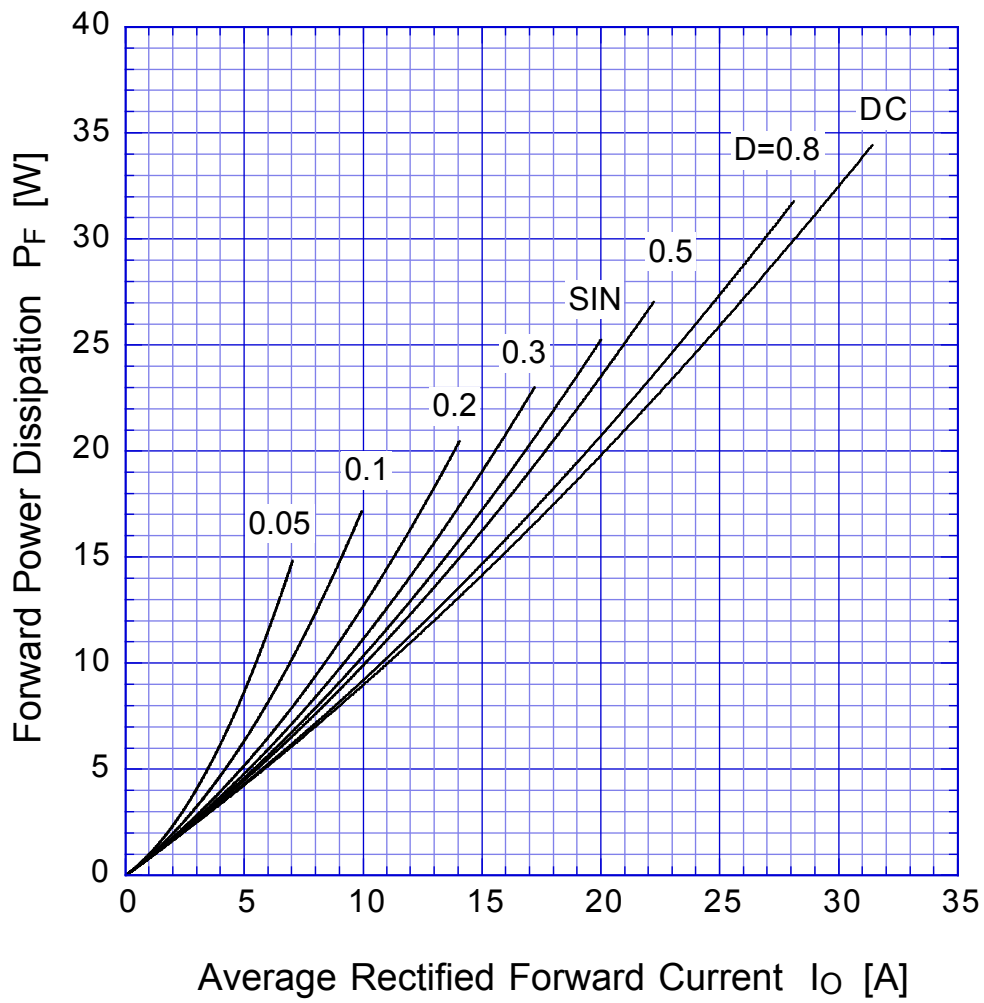
Electrical Characteristics (If not specified $T_c=25$)

| Item | Symbol | Conditions | Ratings | Unit |
|-----------------------|--------|---|---------|---------|
| Forward Voltage | V_F | $I_F=10A$, Pulse measurement, Rating of per diode | Max.1.3 | V |
| Reverse Current | I_R | $V_R=V_{RM}$, Pulse measurement, Rating of per diode | Max.25 | μA |
| Reverse Recovery Time | trr | $I_F=0.5A$, $I_R=1A$, Rating of per diode | Max.30 | ns |
| Junction Capacitance | C_j | $f=1MHz$, $V_R=10V$, Rating of per diode | TYP 90 | pF |
| Thermal Resistance | j_c | junction to case | Max.1.0 | /W |

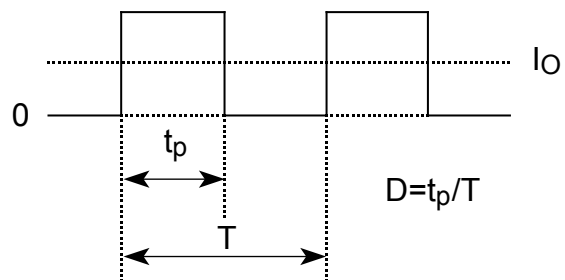
DF20LC30 Forward Voltage



DF20LC30 Forward Power Dissipation

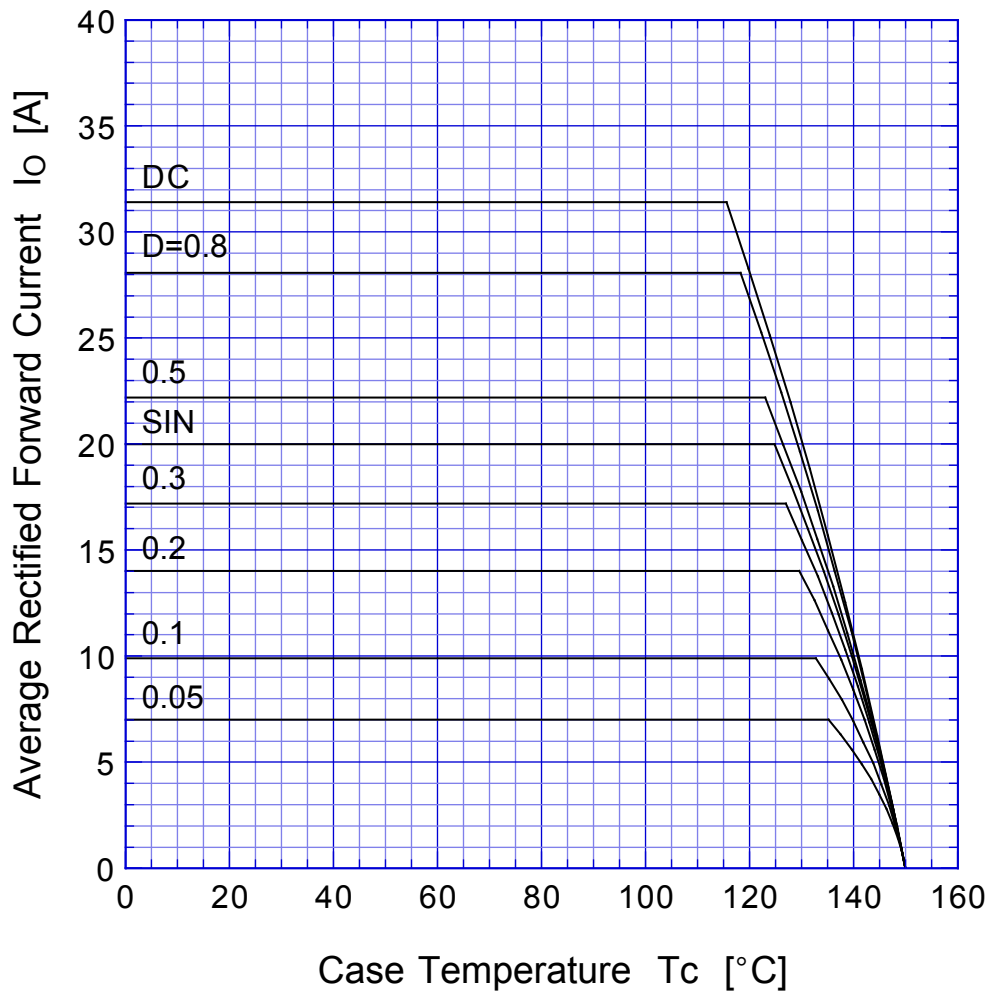


$T_j = 150^\circ\text{C}$



DF20LC30

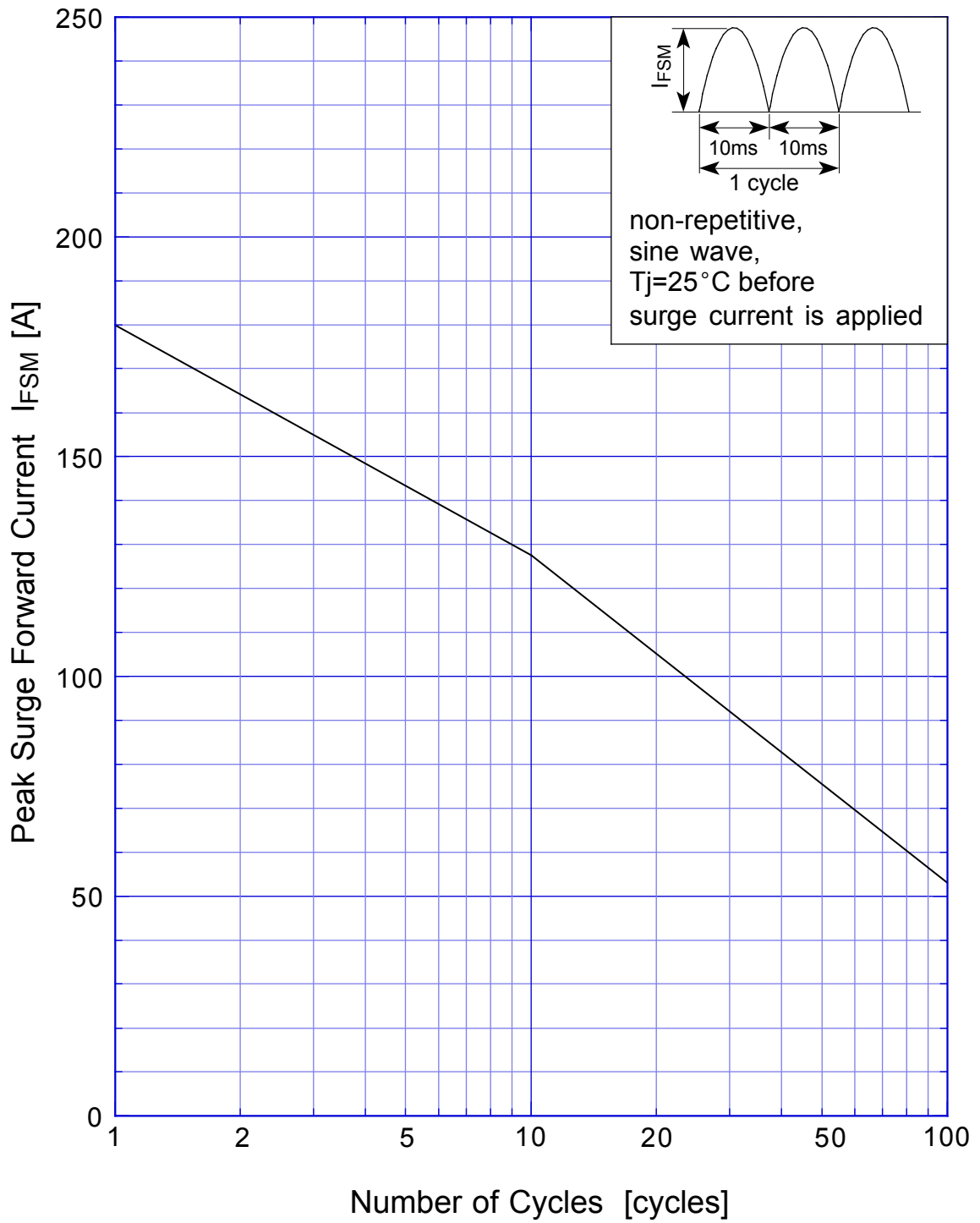
Derating Curve



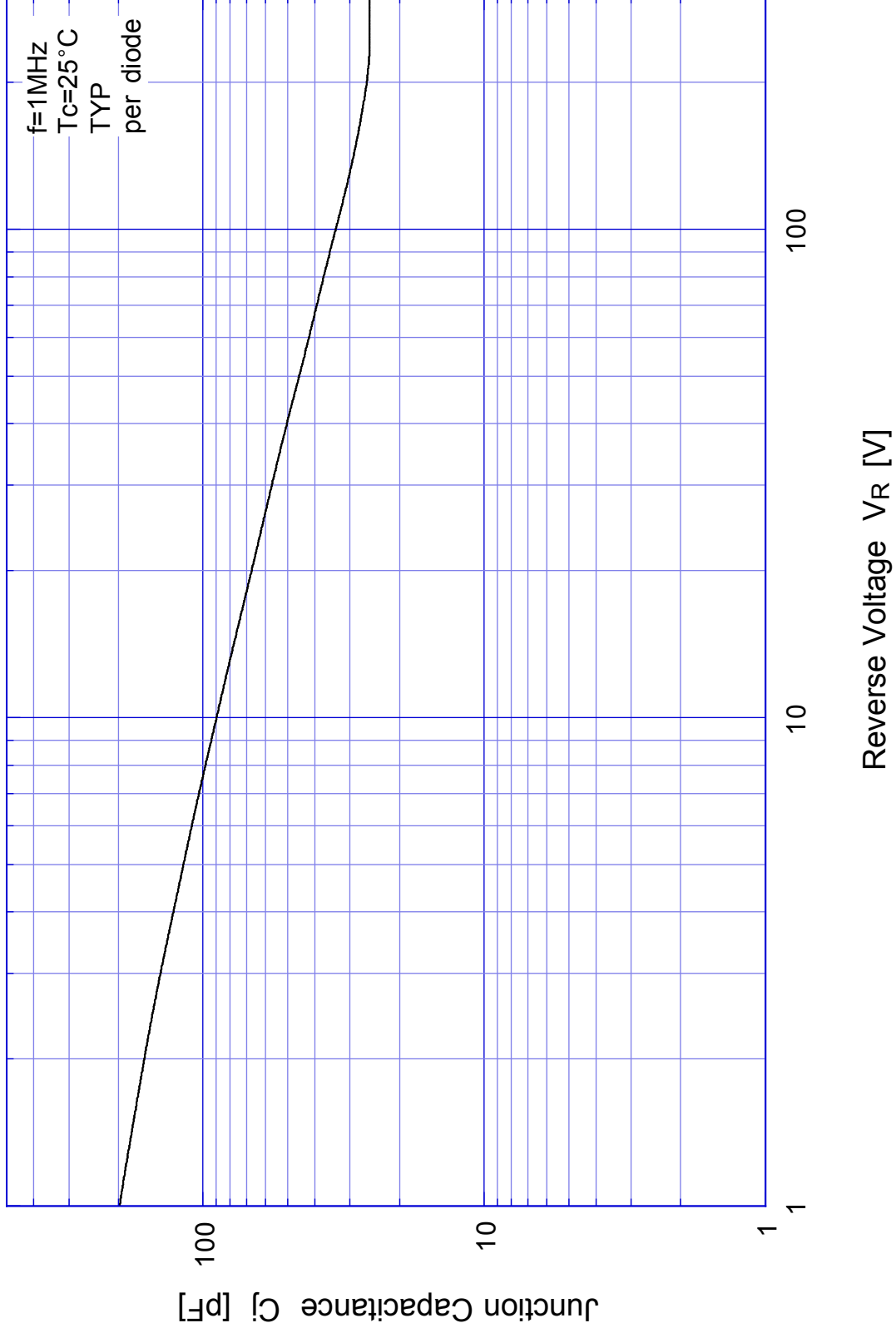
$$V_R = V_{RM}$$



DF20LC30 Peak Surge Forward Capability



DF20LC30 Junction Capacitance



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