

SHINDENGEN

Super Fast Recovery Rectifiers

Dual

S20LC40

400V 20A

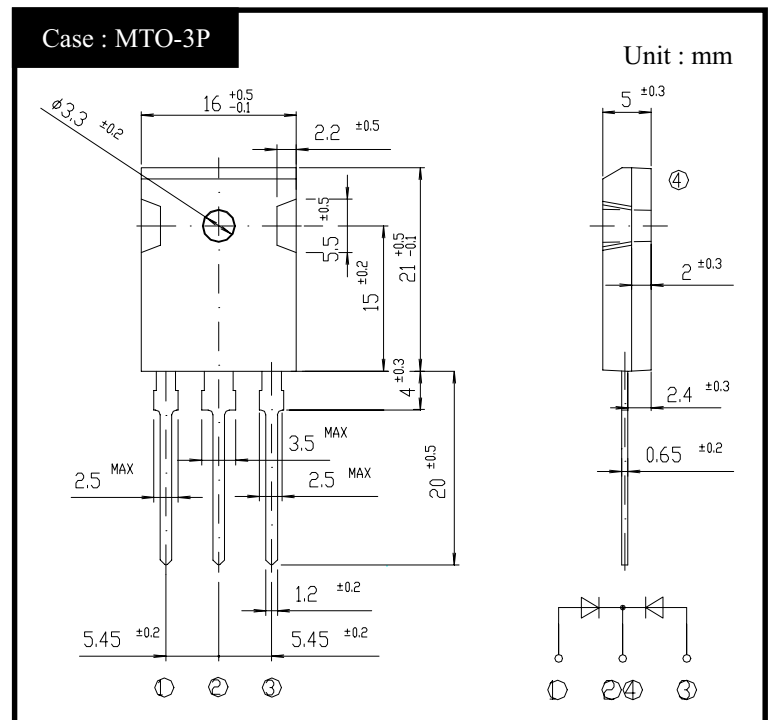
FEATURES

- Low noise
- trr50ns
- Small θ_{jc}

APPLICATION

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

OUTLINE DIMENSIONS



RATINGS

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

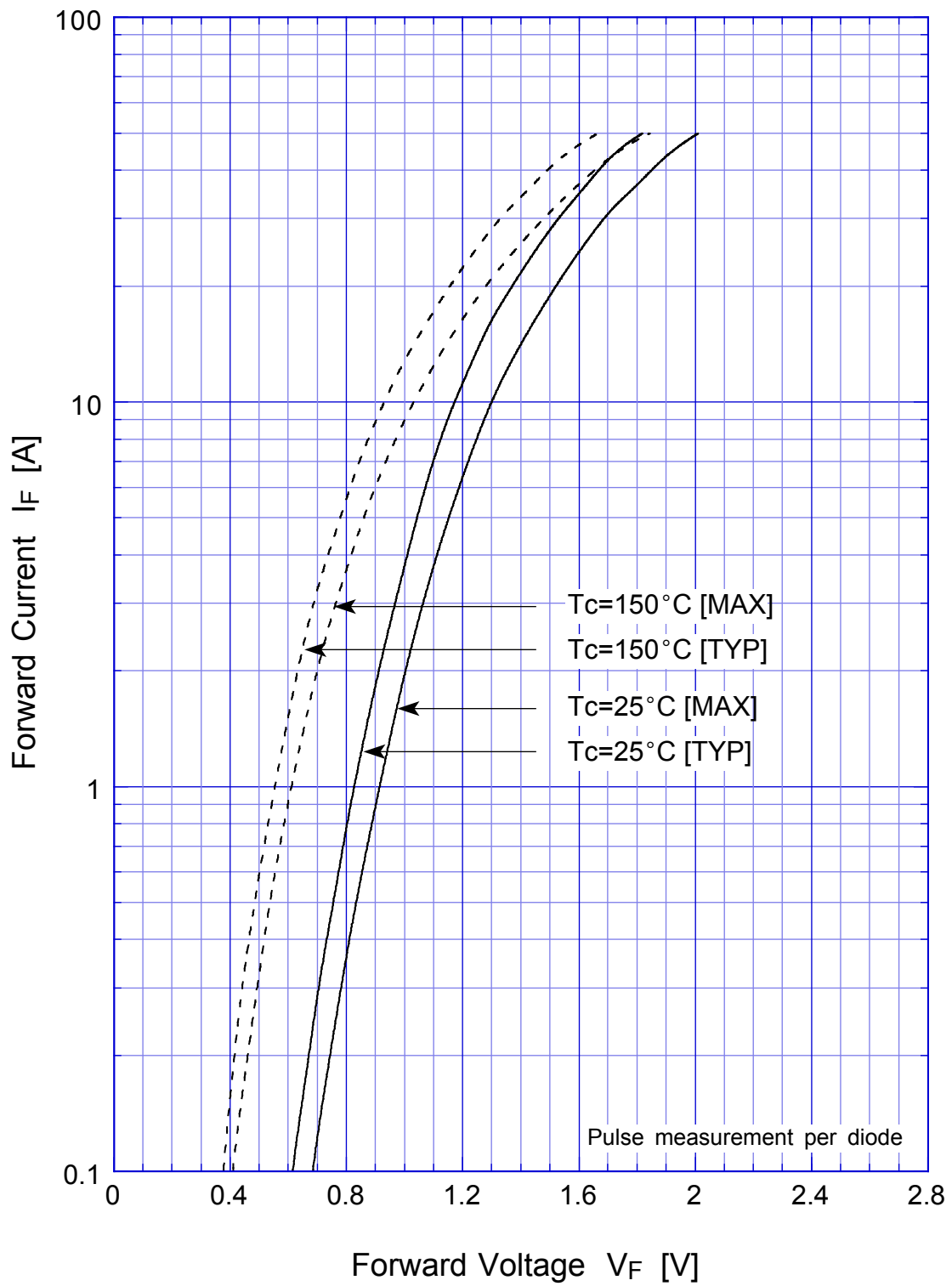
| Item | Symbol | Conditions | Ratings | Unit |
|-----------------------------------|-----------|---|---------|------------------|
| Storage Temperature | T_{stg} | | -40~150 | $^\circ\text{C}$ |
| Operating Junction Temperature | T_j | | 150 | $^\circ\text{C}$ |
| Maximum Reverse Voltage | V_{RM} | | 400 | V |
| Average Rectified Forward Current | I_o | 50Hz sine wave, R-load, Rating for each diode $I_o/2$, $T_c=116^\circ\text{C}$ | 20 | A |
| Peak Surge Forward Current | I_{FSM} | 50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=25^\circ\text{C}$ | 120 | A |
| Mounting Torque | TOR | (Recommended torque:0.5N·m) | 0.8 | N·m |

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

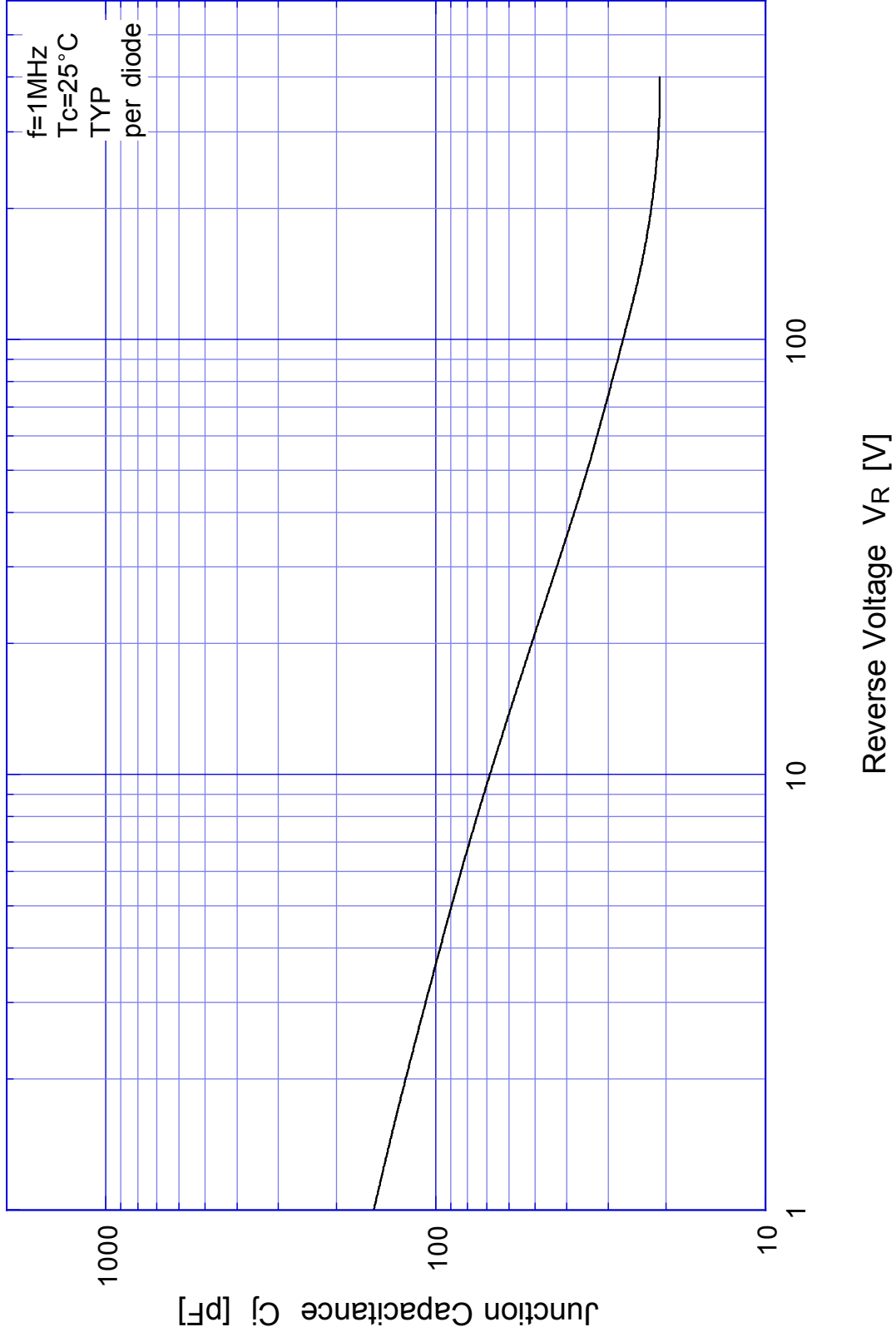
| Item | Symbol | Conditions | Ratings | Unit |
|-----------------------|---------------|---|---------|---------------------------|
| Forward Voltage | V_F | $I_F=10\text{A}$, Pulse measurement, Rating of per diode | Max.1.3 | V |
| Reverse Current | I_R | $V_R=V_{RM}$, Pulse measurement, Rating of per diode | Max.10 | μA |
| Reverse Recovery Time | trr | $I_F=0.5\text{A}$, $I_R=1\text{A}$, Rating of per diode | Max.50 | ns |
| Thermal Resistance | θ_{jc} | junction to case | Max.1.2 | $^\circ\text{C}/\text{W}$ |

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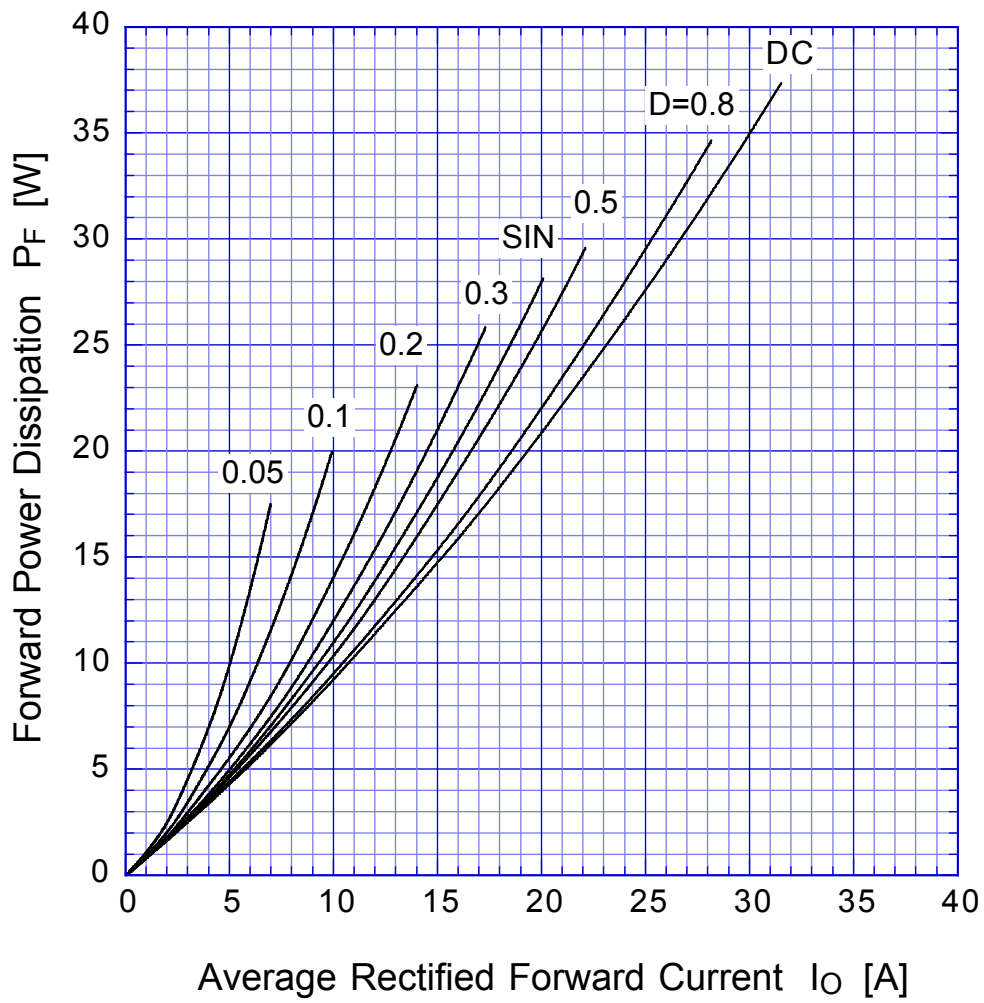
Forward Voltage



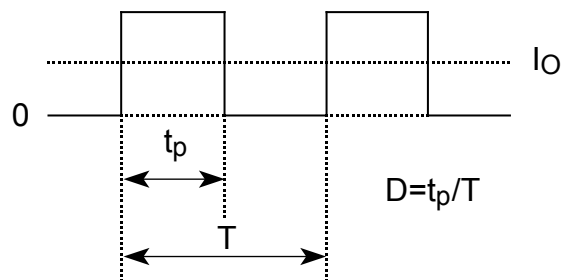
S20LC40 Junction Capacitance



S20LC40 Forward Power Dissipation

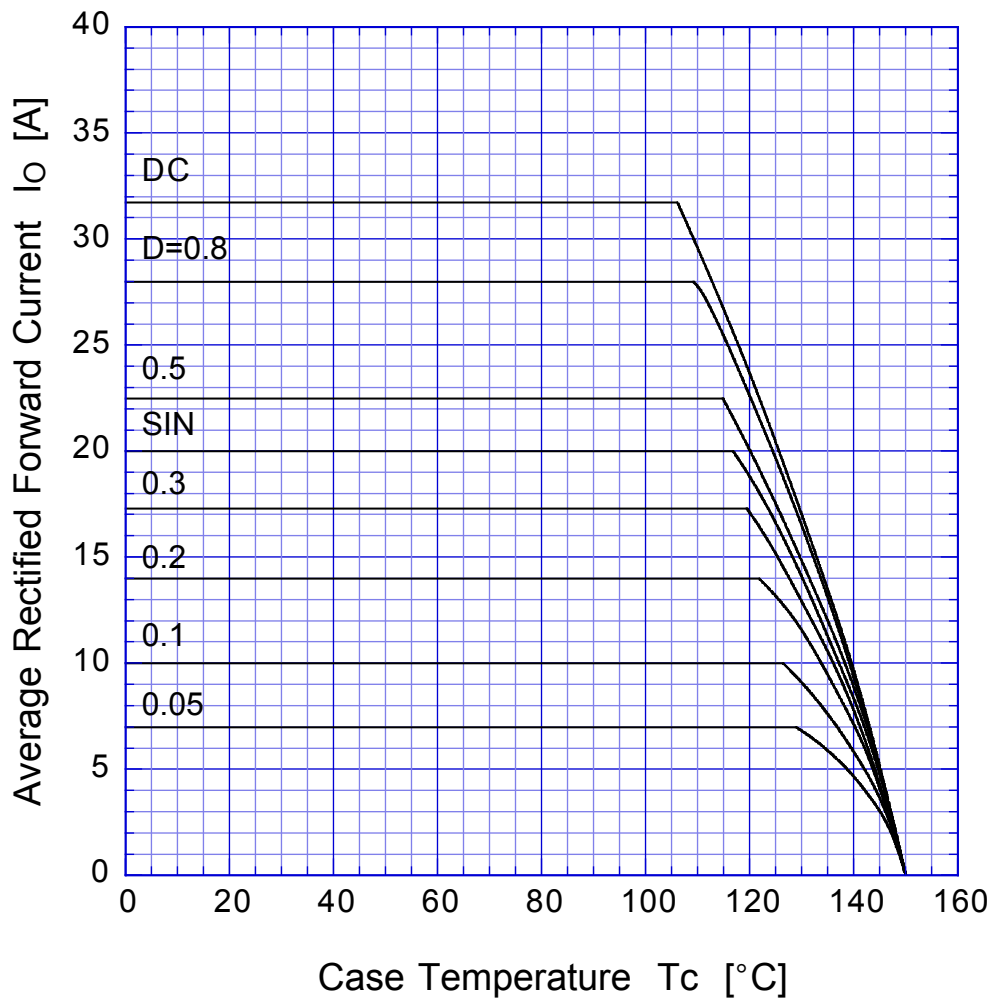


$T_j = T_{jmax}$



S20LC40

Derating Curve



$$V_R = V_{RM}$$



S20LC40

Peak Surge Forward Capability

