

# SHINDENGEN

## Super Fast Recovery Rectifiers

Dual

# S20LC40

## 400V 20A

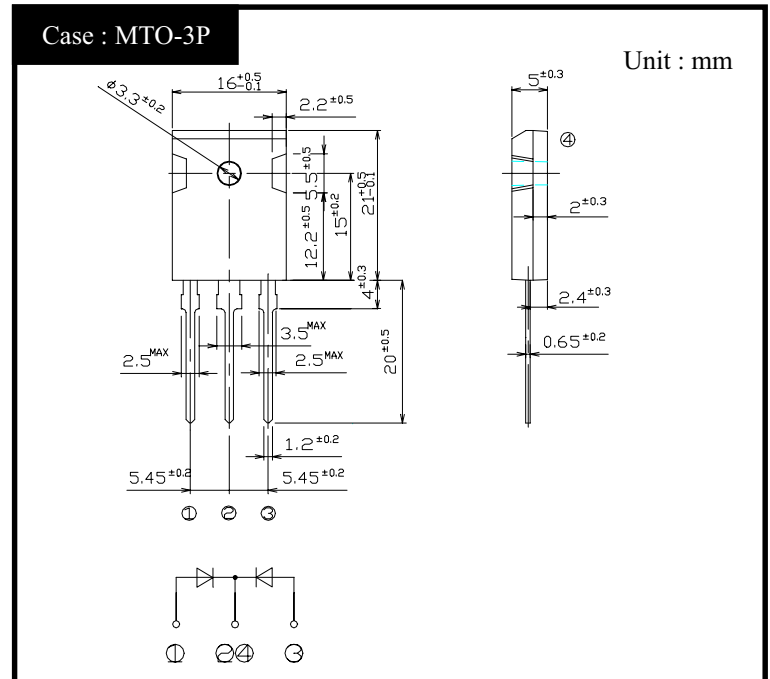
### FEATURES

- Low noise
- trr50ns
- Small  $\theta_{jc}$

### APPLICATION

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

### OUTLINE DIMENSIONS



### RATINGS

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

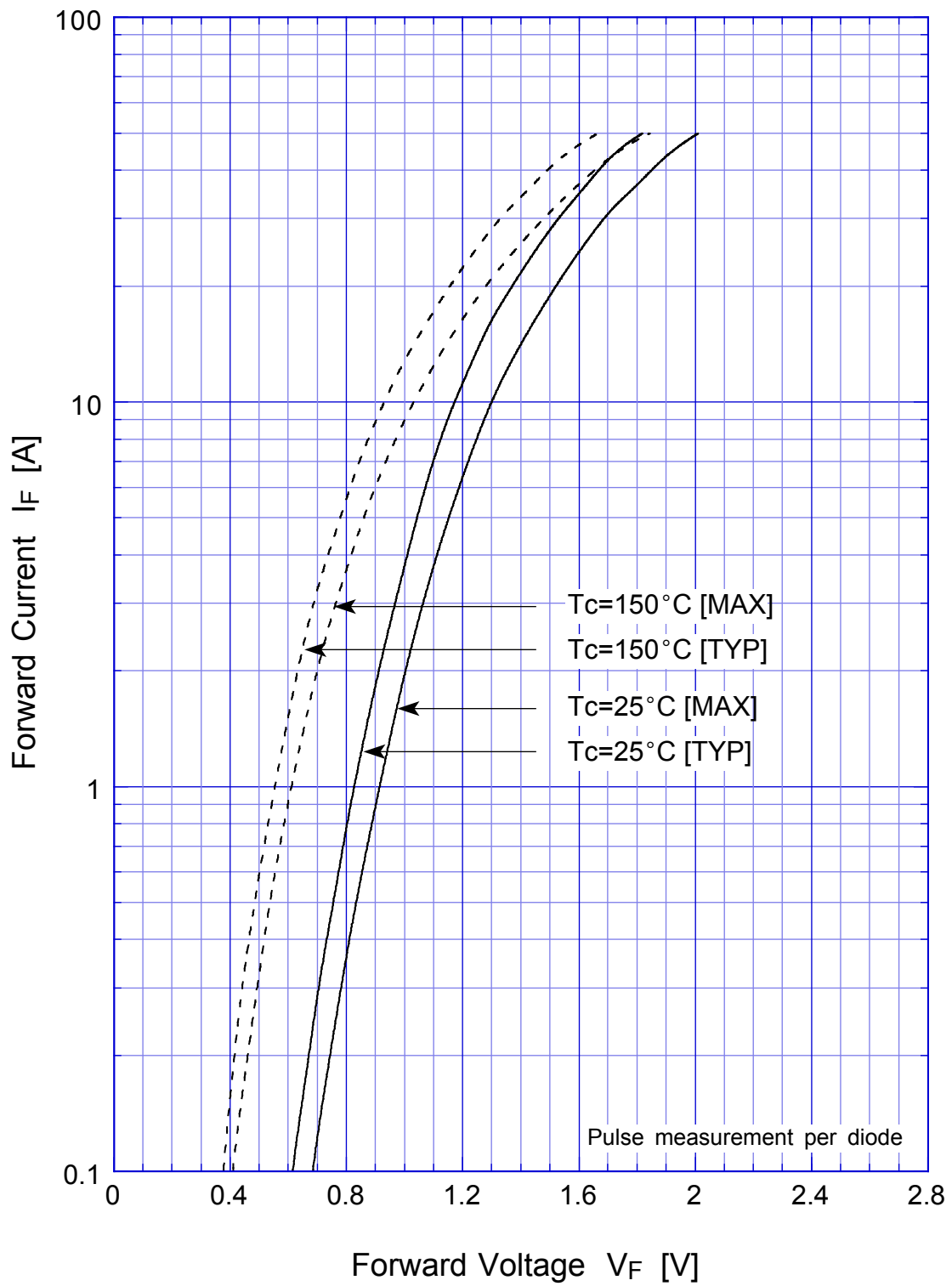
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	$T_{stg}$		-40~150	$^\circ\text{C}$
Operating Junction Temperature	$T_j$		150	$^\circ\text{C}$
Maximum Reverse Voltage	$V_{RM}$		400	V
Average Rectified Forward Current	$I_o$	50Hz sine wave, R-load, Rating for each diode $I_o/2$ , $T_c=116^\circ\text{C}$	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 $T_c=25^\circ\text{C}$ )

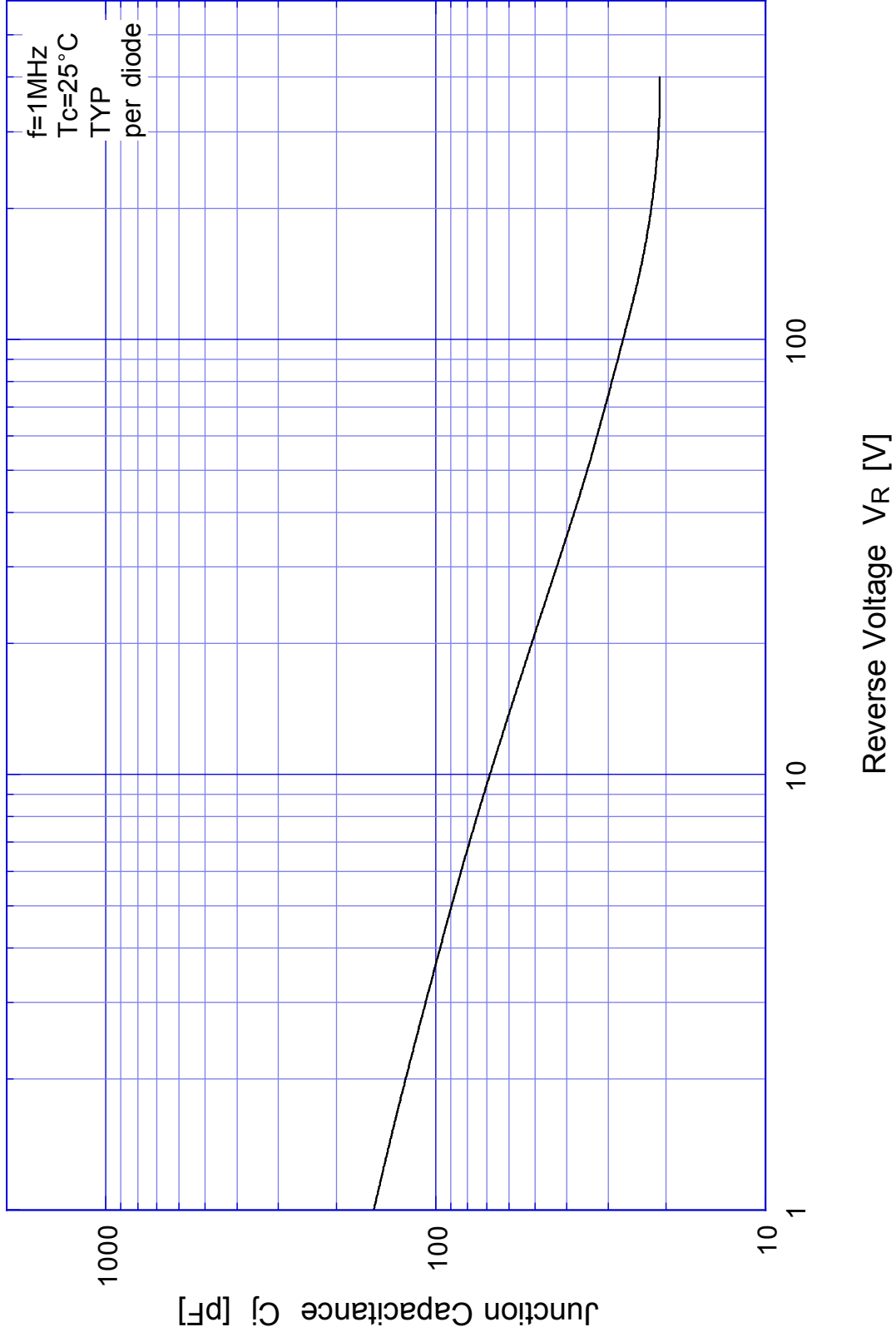
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	$V_F$	$I_F=10\text{A}$ , Pulse measurement, Rating of per diode	Max.1.3	V
Reverse Current	$I_R$	$V_R=V_{RM}$ , Pulse measurement, Rating of per diode	Max.10	$\mu\text{A}$
Reverse Recovery Time	trr	$I_F=0.5\text{A}$ , $I_R=1\text{A}$ , Rating of per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

# S20LC40

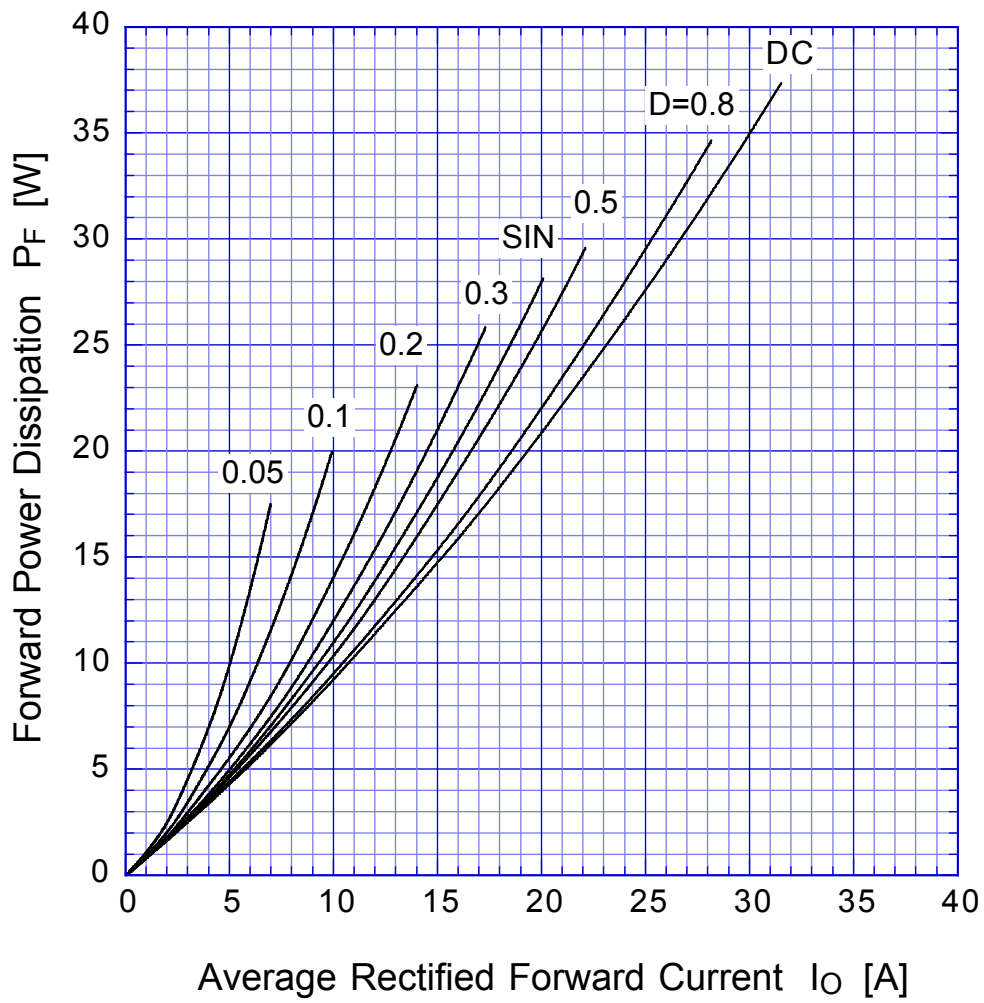
## Forward Voltage



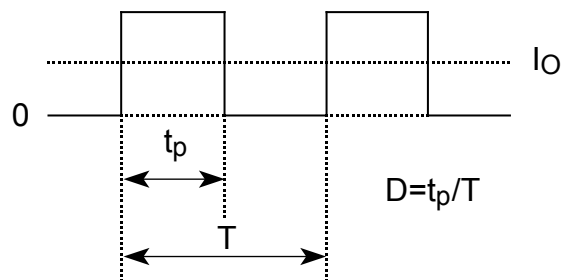
## S20LC40 Junction Capacitance



# S20LC40 Forward Power Dissipation

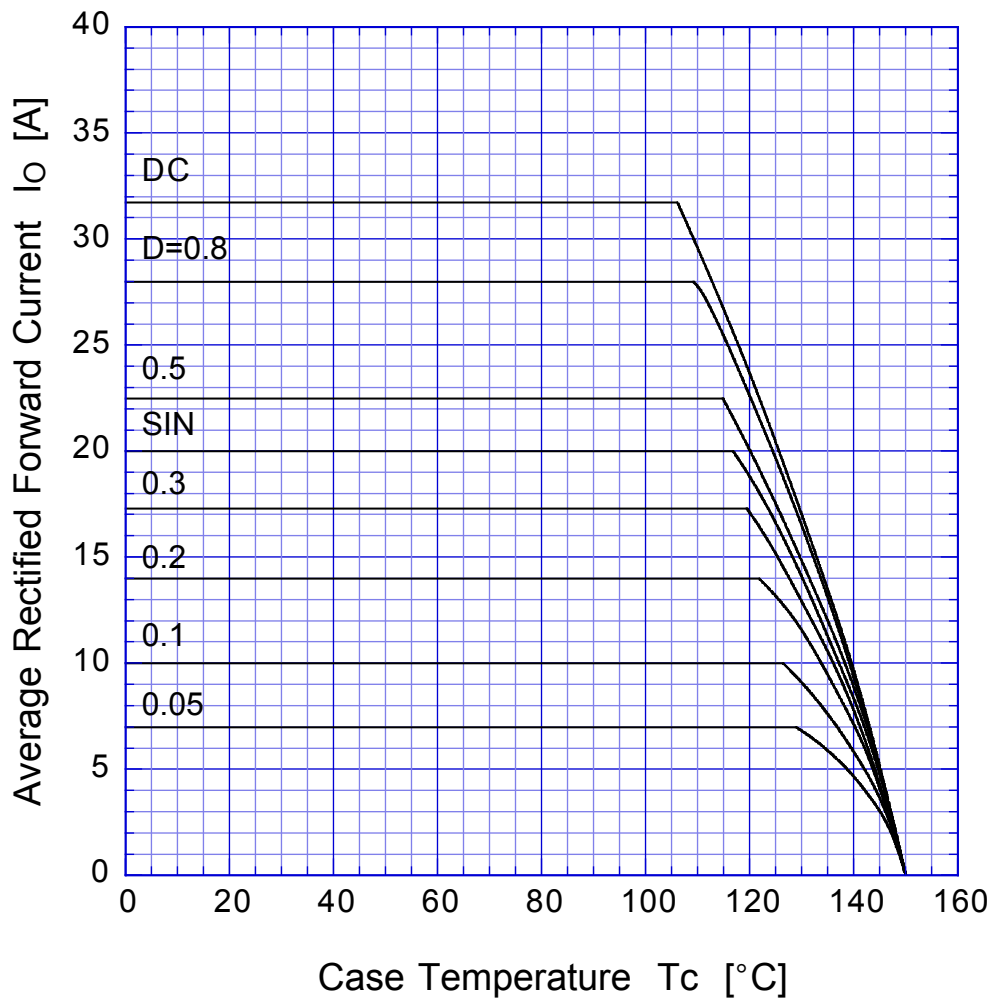


$T_j = T_{jmax}$



# S20LC40

# Derating Curve



$$V_R = V_{RM}$$



# S20LC40

## Peak Surge Forward Capability

