

# SHINDENGEN

## Super Fast Recovery Rectifiers

Dual

# DF20LC30

## 300V 20A

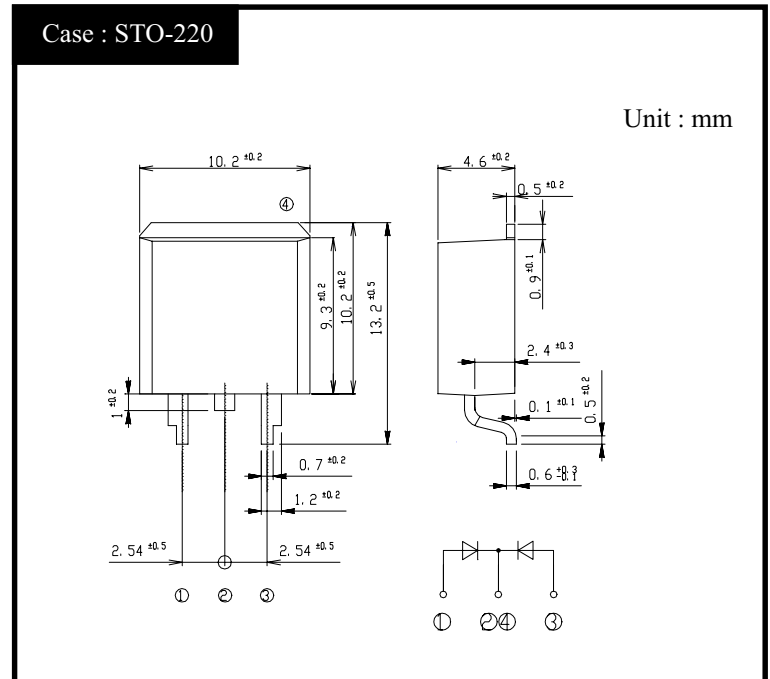
### FEATURES

- SMT
- Low noise
- trr30ns

### APPLICATION

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

### OUTLINE DIMENSIONS



### RATINGS

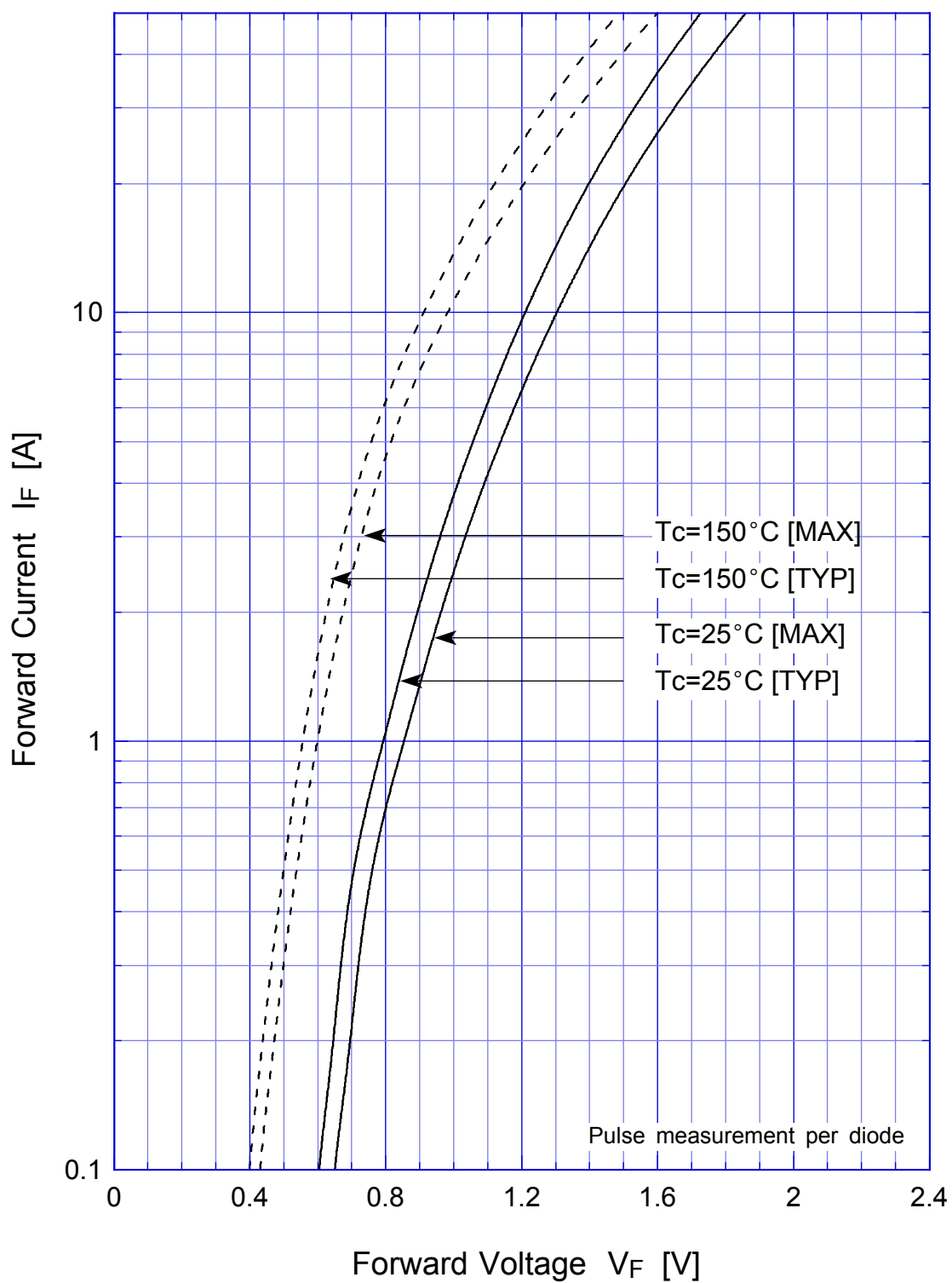
#### ● Absolute Maximum Ratings (If not specified Tc=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T <sub>stg</sub>		-55~150	°C
Operating Junction Temperature	T <sub>j</sub>		150	°C
Maximum Reverse Voltage	V <sub>RM</sub>		300	V
Average Rectified Forward Current	I <sub>O</sub>	50Hz sine wave, R-load, Rating for each diode I <sub>o</sub> /2, T <sub>c</sub> =124°C	20	A
Peak Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle peak value, T <sub>j</sub> =25°C	180	A

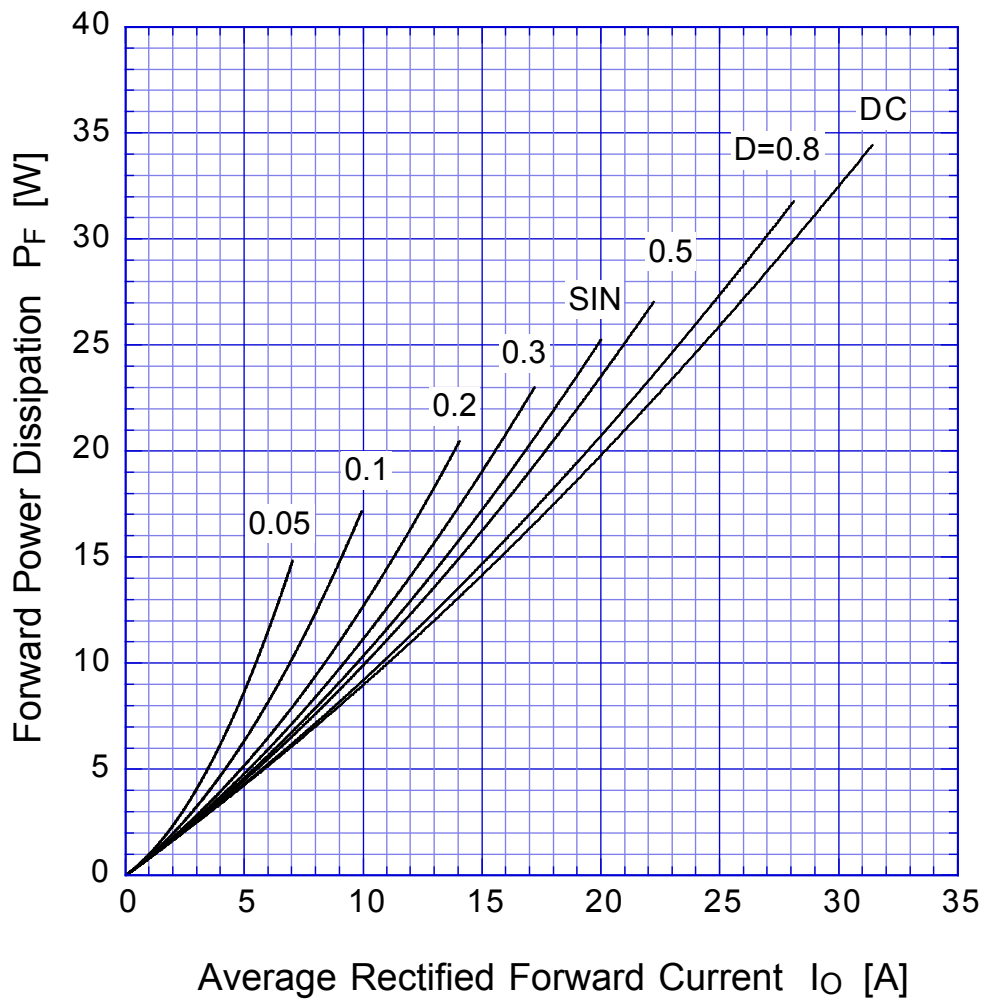
#### ● Electrical Characteristics (If not specified Tc=25°C)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =10A, Pulse measurement, Rating of per diode	Max.1.3	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =V <sub>RM</sub> , Pulse measurement, Rating of per diode	Max.25	μA
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =0.5A, I <sub>R</sub> =1A, Rating of per diode	Max.30	ns
Junction Capacitance	C <sub>j</sub>	f=1MHz, V <sub>R</sub> =10V, Rating of per diode	TYP 90	pF
Thermal Resistance	θ <sub>jc</sub>	junction to case	Max.1.0	°C/W

# DF20LC30 Forward Voltage



## DF20LC30 Forward Power Dissipation

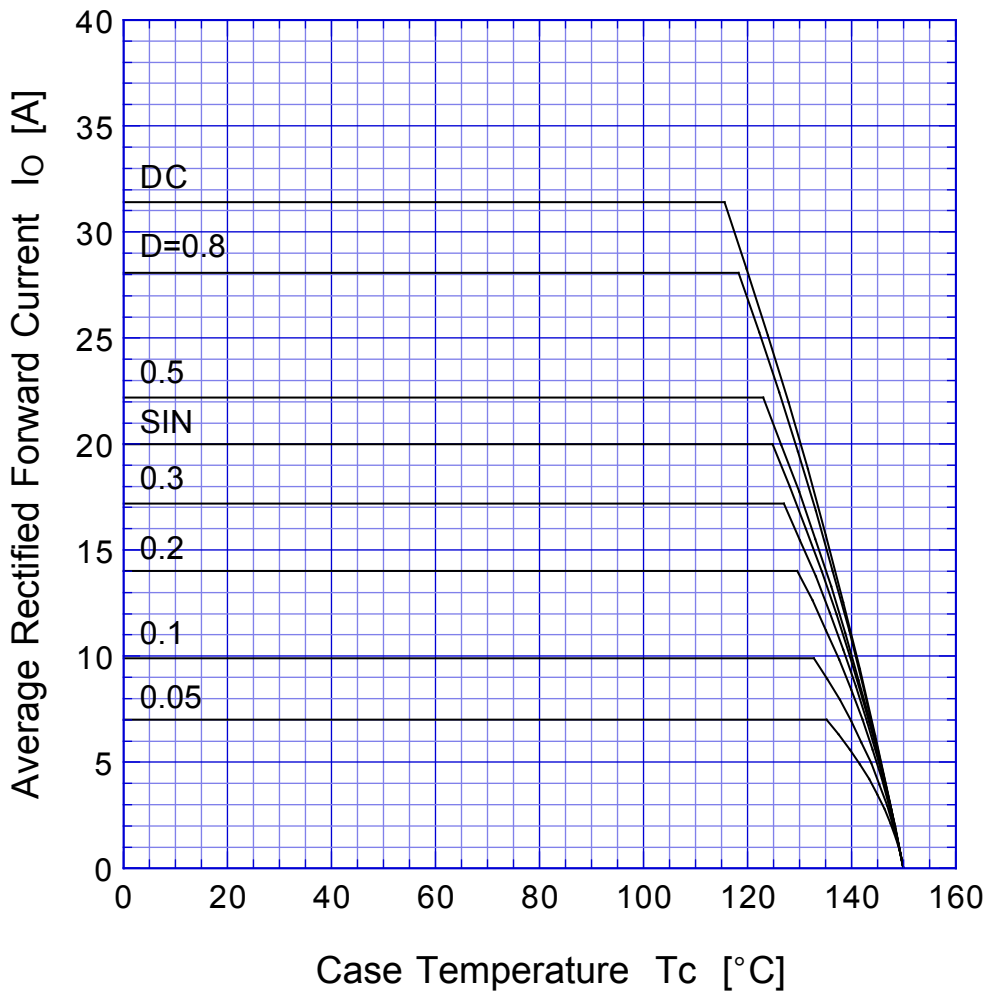


$T_j = 150^\circ\text{C}$



# DF20LC30

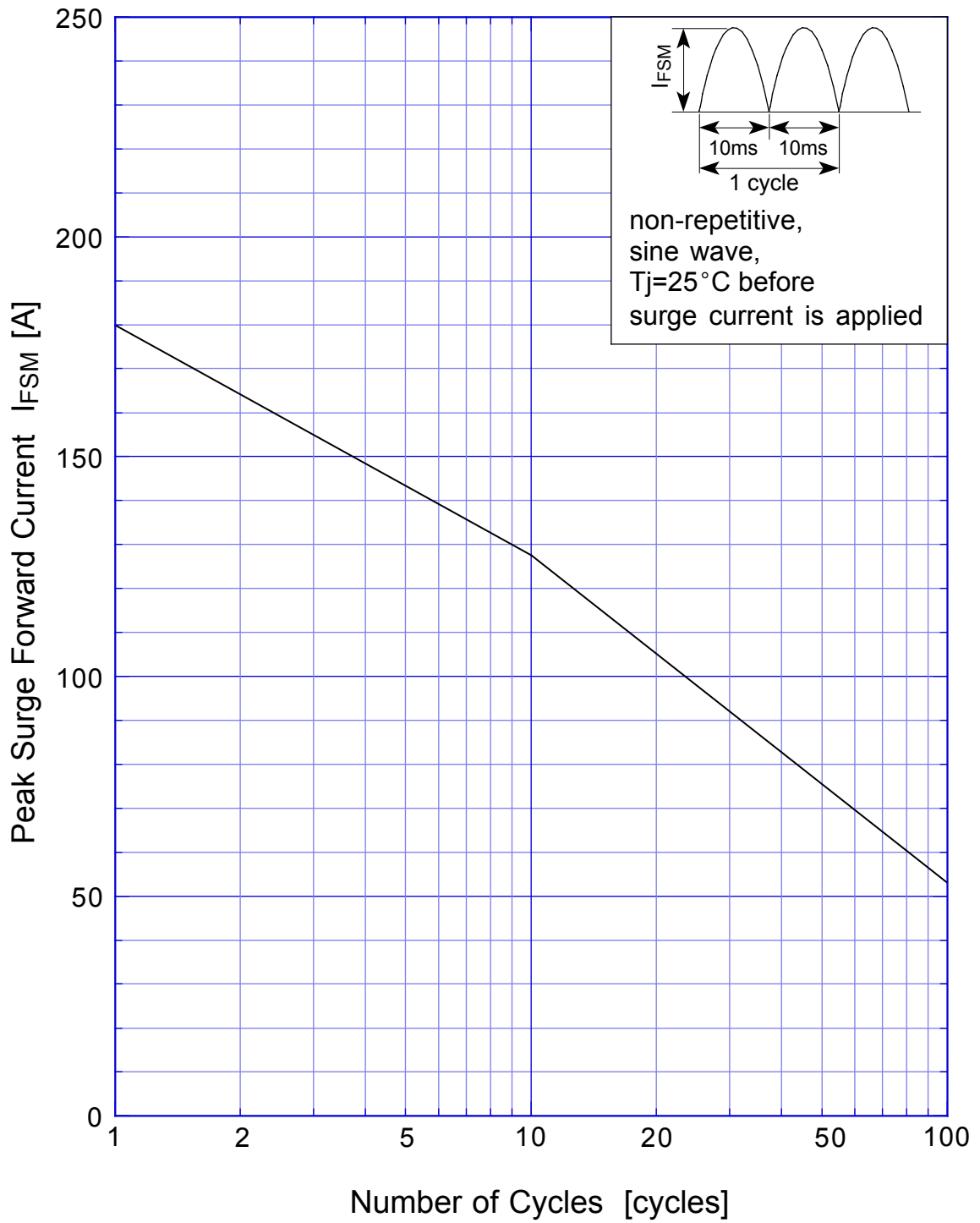
# Derating Curve



$$V_R = V_{RM}$$



# DF20LC30 Peak Surge Forward Capability



# DF20LC30 Junction Capacitance

