SHINDENGEN

Super Fast Recovery Rectifiers

Single

SF6L20U

200V 6A

FEATURES

- Low noise
- trr35ns
- Fully Isolated Molding
- Dielectric strength 2kV guaranteed

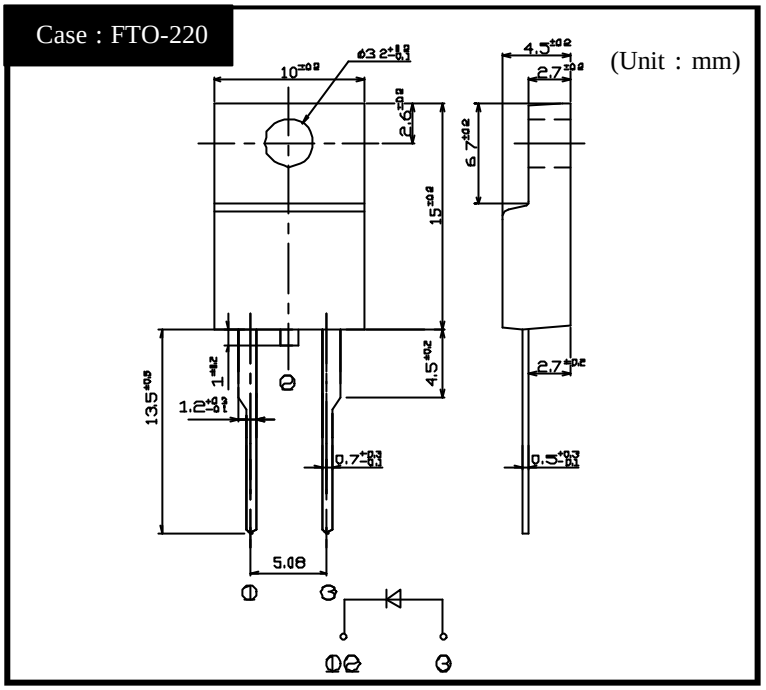
APPLICATION

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

OUTLINE DIMENSIONS

Case : FTO-220

(Unit : mm)



RATINGS

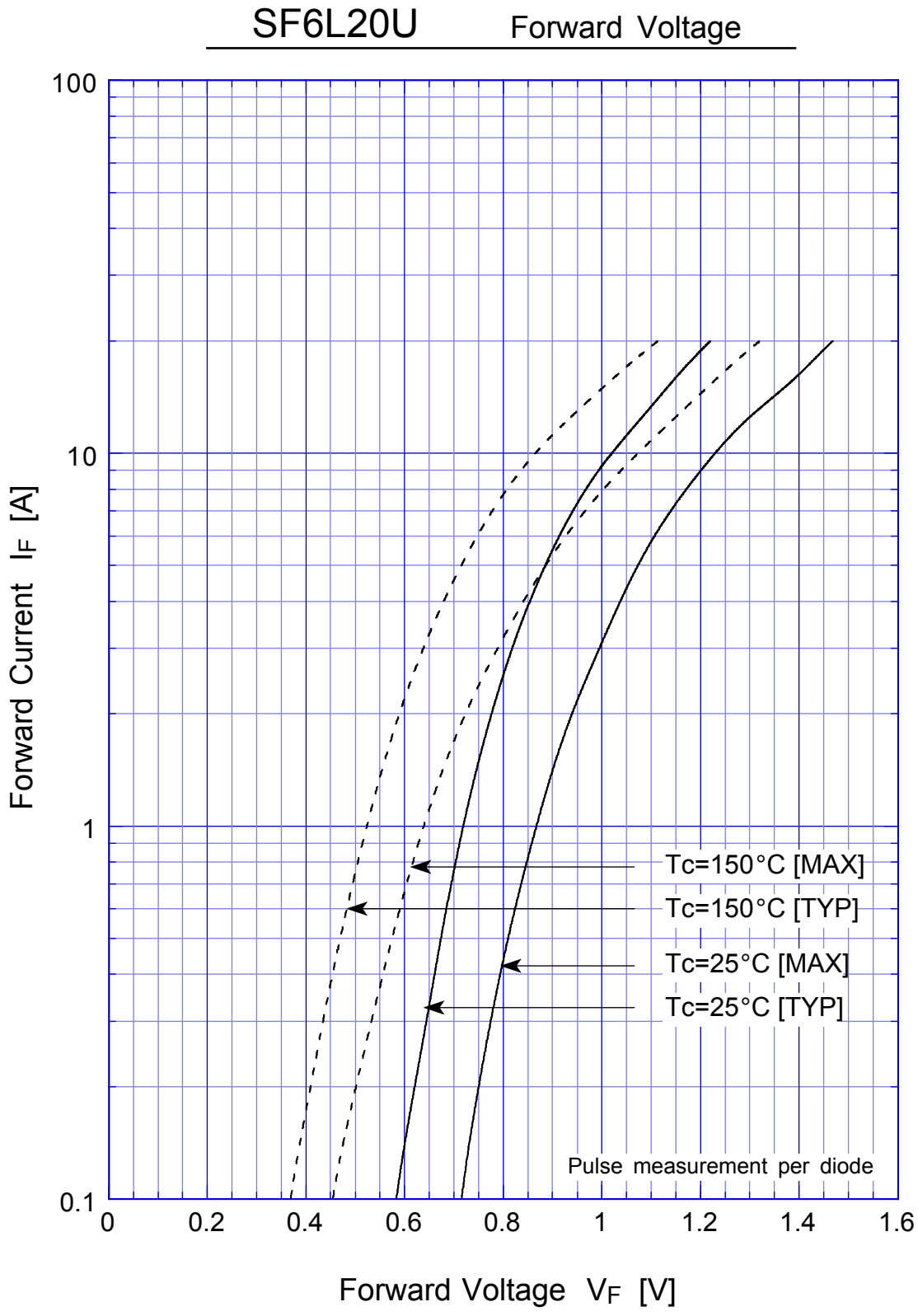
●Absolute Maximum Ratings (If not specified Tc=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-40～150	°C
Operating Junction Temperature	Tj		150	°C
Maximum Reverse Voltage	V_{RM}		200	V
Average Rectified Forward Current	Io	50Hz sine wave, R-load, Tc=126°C	6	A
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C	80	A
Dielectric Strength	Vdis	Terminals to case, AC 1 minute	2	kV
Mounting Torque	TOR	(Recommended torque 0.3N･m)	0.5	N･m

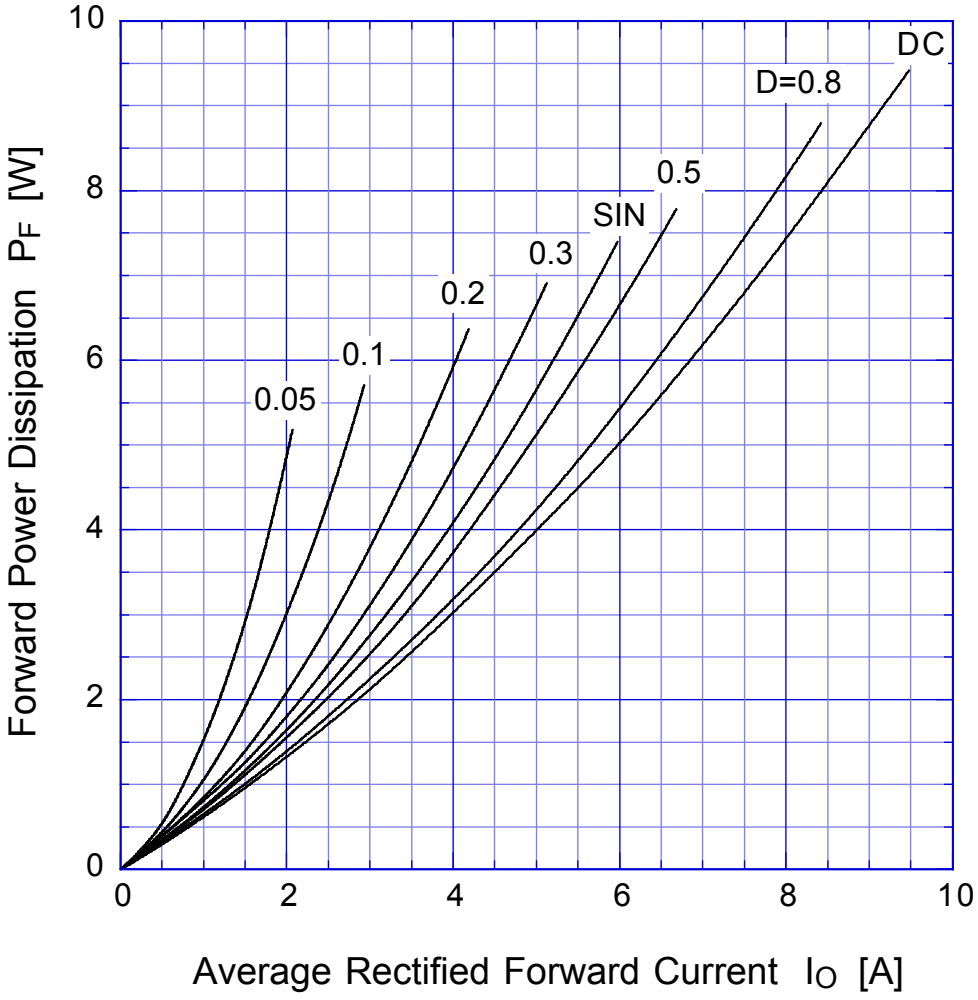
●Electrical Characteristics (If not specified Tc=25°C)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	I_F=6.0A, Pulse measurement	Max.1.1	V
Reverse Current	I_R	$V_R=V_{RM}$, Pulse measurement	Max.10	μA
Reverse Recovery Time	trr	I_F=0.5A, I_R=1A	Max.35	ns
Thermal Resistance	θjc	junction to case	Max.3.2	°C/W

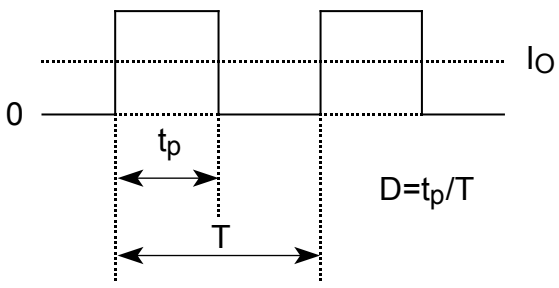
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SF6L20U
Forward Voltage
100
10
1
0.1
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
Forward Current IF [A]
Forward Voltage VF [V]
Tc=150°C [MAX]
Tc=150°C [TYP]
Tc=25°C [MAX]
Tc=25°C [TYP]
Pulse measurement per diode

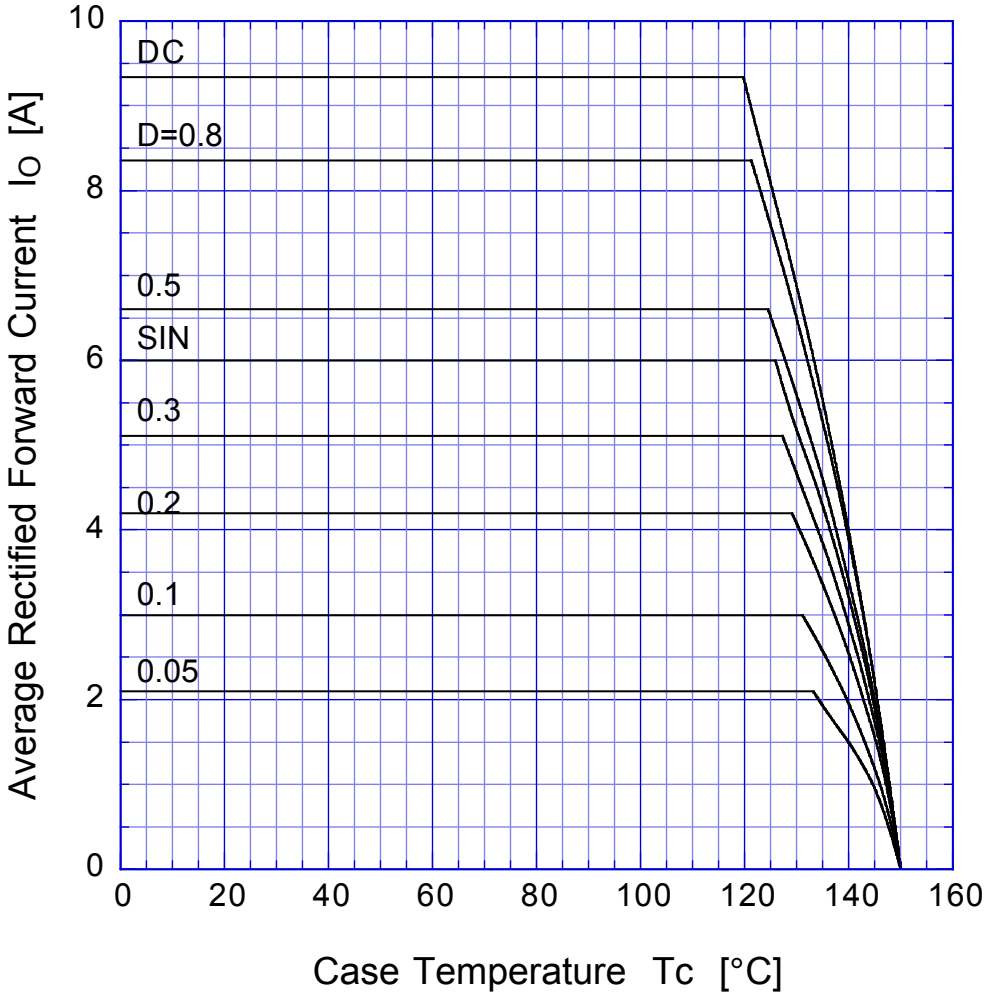
SF6L20U Forward Power Dissipation



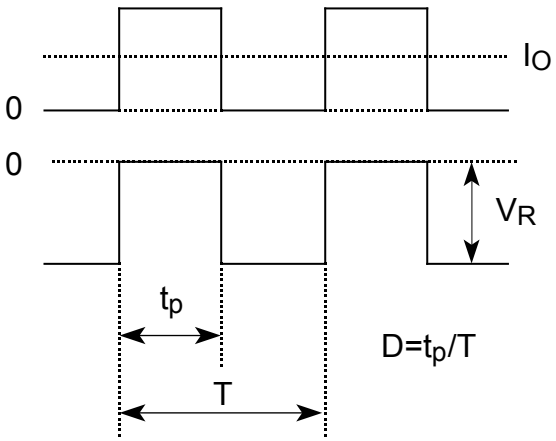
Tj = Tjmax



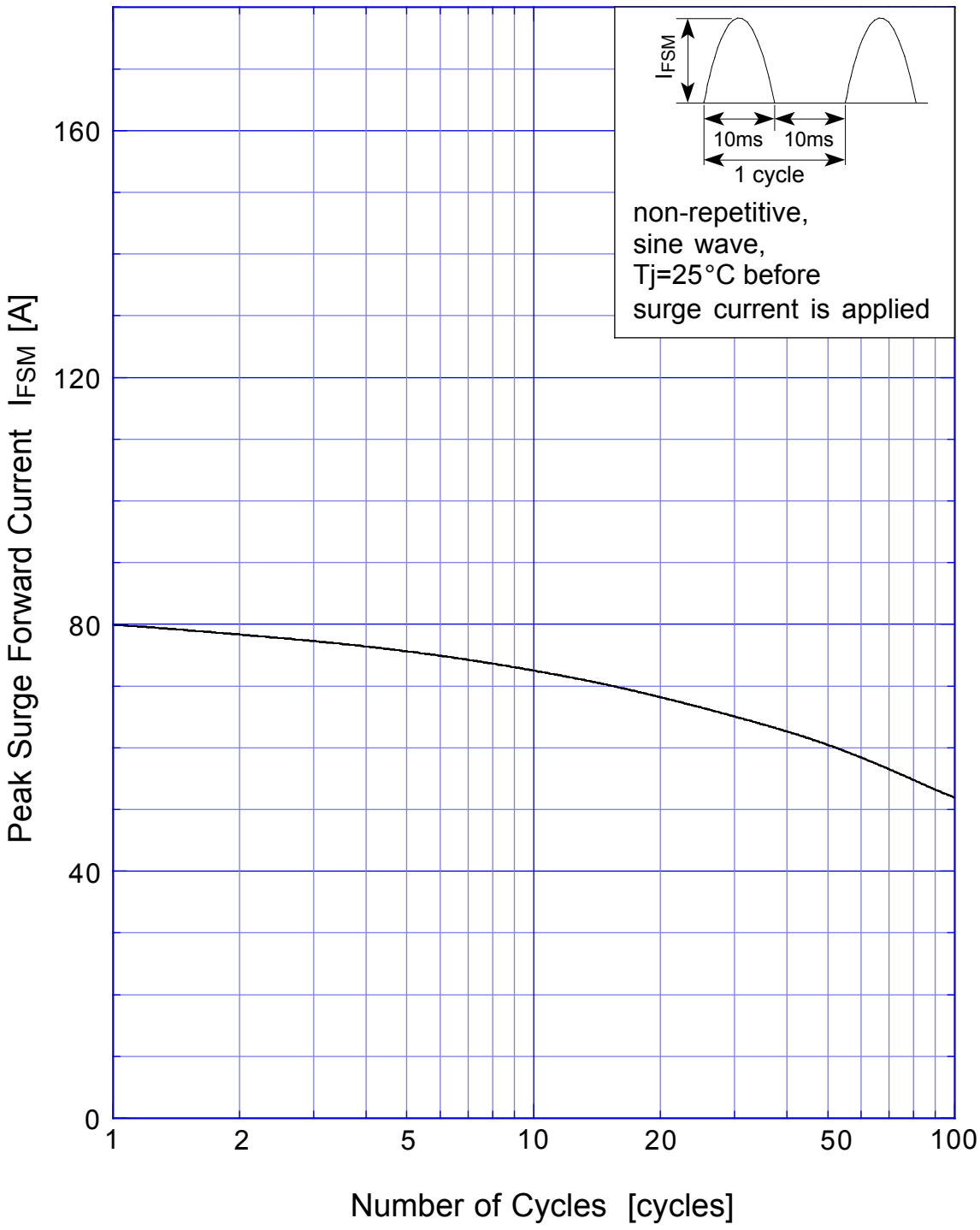
SF6L20U Derating Curve



$V_R = V_{RM}$



SF6L20U Peak Surge Forward Capability



SF6L20U Junction Capacitance

