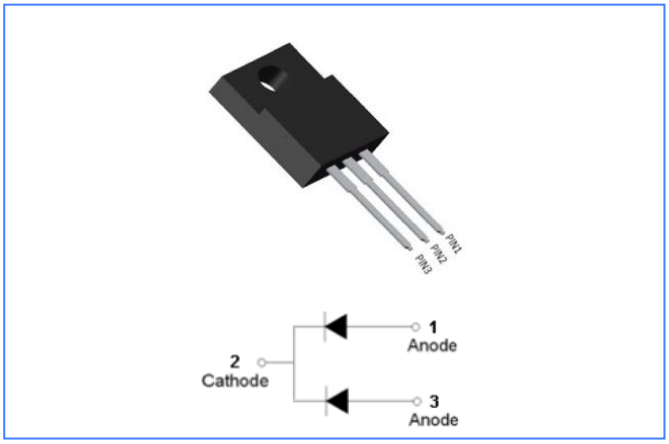
YSD20150DNF

Features

- Low forward voltage
- High current capability
- High forward surge capability
- Low power losses，High efficiency
- Guarding for over voltage protection



Applications

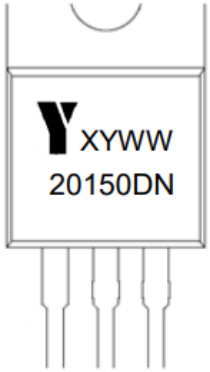
Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

- DC-DC Converters
- AC-DC Adaptors

Mechanical Data

- Case:TO-220F
- Polarity: As marked
- Mounting Position: any
- Molded Plastic: UL Flammability Classification Rating 94V-0

Marking



Primary Characteristi

I_O	2*10A
V_{RRM}	150V
I_{FSM}	2*150A
V_F	0.90V
T_{JMAX}	175℃

Maximum Ratings and Electrical Characteristics(TA=25℃ unless otherwise noted)

Symbol	Parameter		Value	Unit
V_{RRM}	Peak Repetitive Reverse Voltage		150	V
V_{RWM}	Working Peak Reverse Voltage			
V_R	DC Blocking voltage			
I_O	Maximum average forward rectified current	Per leg	10.0	A
		Total	20.0	
I_{FSM}	Peak Forward Surge Current,8.3 ms Single Half Sine-wave		2*150	A
$R_{\Theta JC}$	Typical Thermal Resistance (Note1)		4	℃/W
T_j	Operating Temperature Range		-55~+175	℃
T_{stg}	Storage Temperature		-55~+175	℃

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)			TYP.	MAX.	
at IF=20A	TA=25°C	V_F		0.90	V
Maximum Reverse Current at V_R=200V	TA=25°C	I_R		0.05	mA
	TA=125°C			20	mA

Note2:Pulse test: 300 μs pulse width, 1 % duty cycle

Typical Character

FIG1:Io -Tc Curve

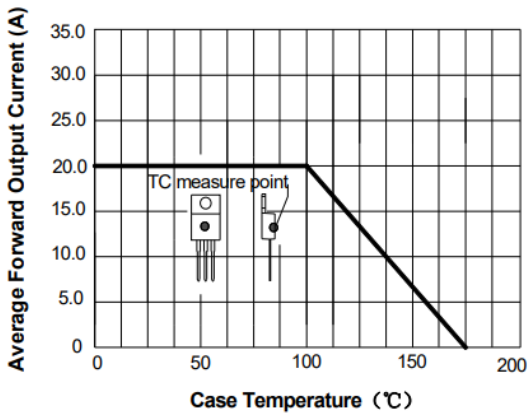


FIG2:Surge Forward Current Capability

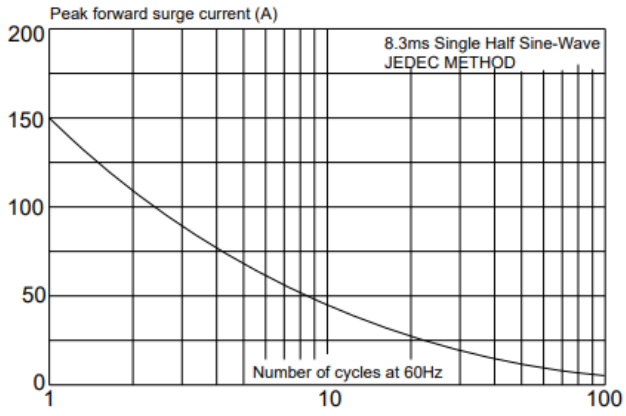


FIG3: Forward Voltage

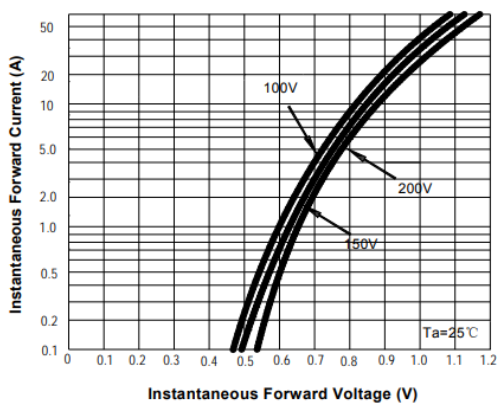
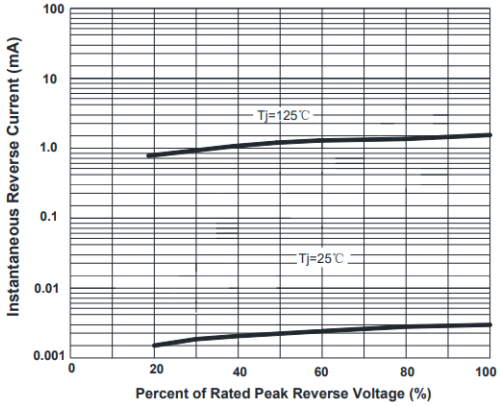
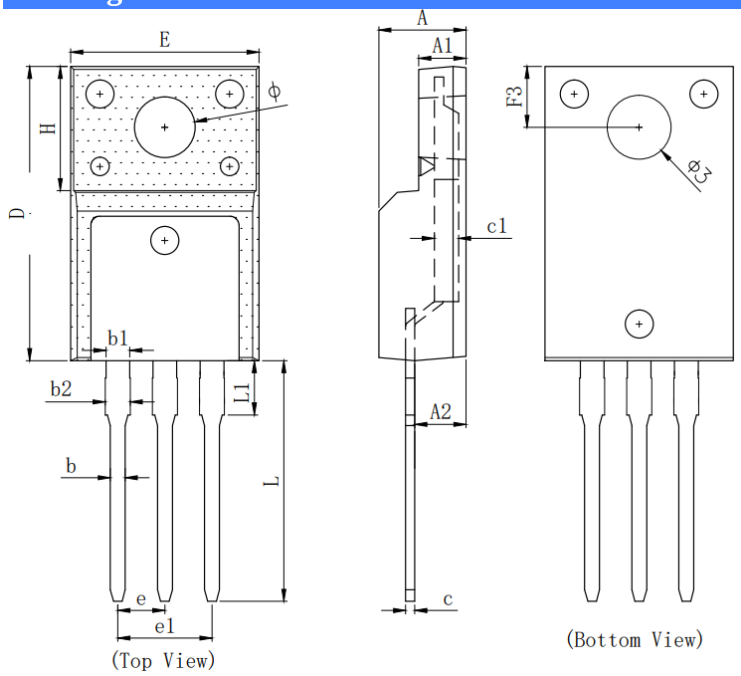


FIG.4: Instantaneous Reverse Characteristics



Package Outline Dimensions in millimeters



Dim.	Min.	Typ.	Max.
A	4.500	4.700	4.900
A1	2.340	2.540	2.740
A2	2.560	2.760	2.960
b	0.700	0.800	0.950
b1	1.180	1.280	1.430
b2	1.250	1.350	1.550
c	0.400	0.500	0.650
c1	1.200	1.300	1.350
D	15.570	15.870	16.170
H	6.700 REF		
E	9.960	10.160	10.360
e	2.540 BSC		
e1	5.080 BSC		
L	12.680	12.980	13.280
L1	2.780	2.930	3.080
F3	3.150	3.300	3.450
ϕ	3.030	3.180	3.450
ϕ3	3.150	3.450	3.650

Disclaimer

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.