

YSD20200DN

Features

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

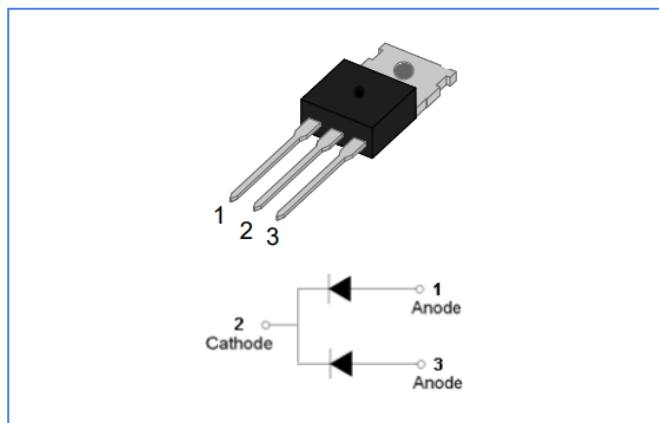
Applications

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

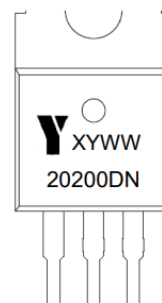
- DC-DC Converters
- AC-DC Adaptors

Mechanical Data

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



Marking



Primary Characteristi

I_o	2*10A
V_{RRM}	200V
I_{FSM}	2*150A
V_F	0.92V
T_{JMAX}	175°C

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

Symbol	Parameter	Value	Unit
V_{RRM}	Peak Repetitive Reverse Voltage	200	V
V_{RWM}	Working Peak Reverse Voltage		
V_R	DC Blocking voltage		
I_o	Maximum average forward rectified current	Per leg	10.0
		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)	2	°C/W
T_j	Operating Temperature Range	-55~+175	°C
T_{stg}	Storage Temperature	-55~+175	°C

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

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbol	Value		Unit
			TYP.	MAX.	
Forward Voltage Drop(Note2) at IF=20A		V _F		0.92	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: I_o -T_c Curve

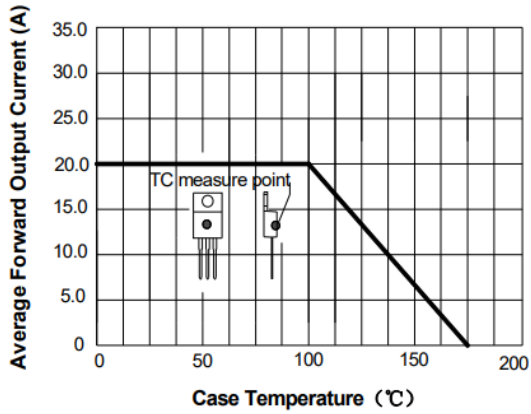


FIG2: Surge Forward Current Capability

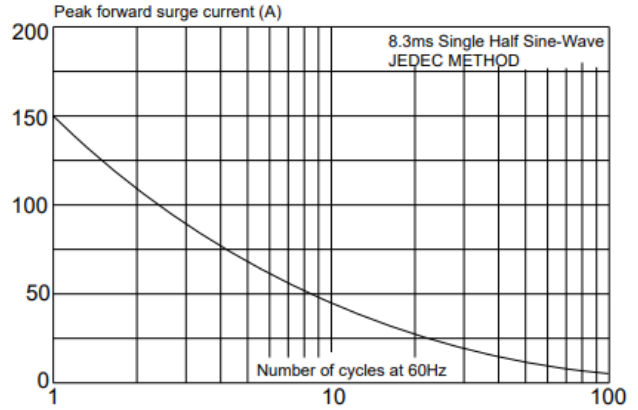


FIG3: Forward Voltage

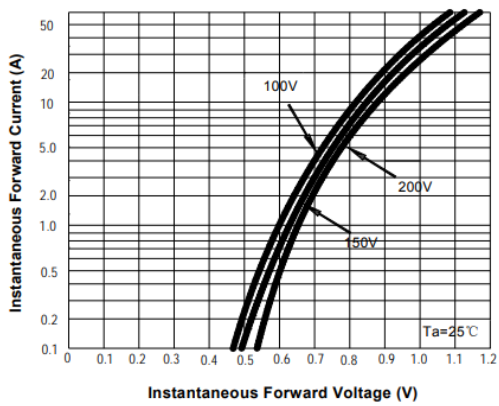
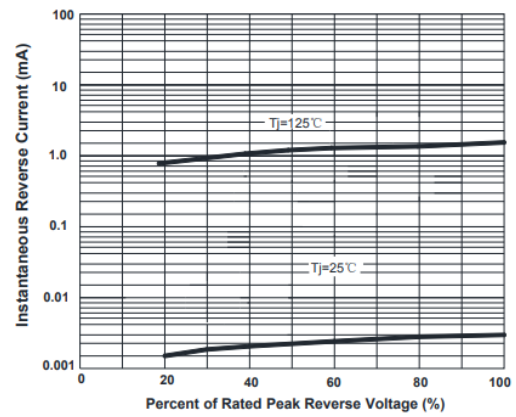
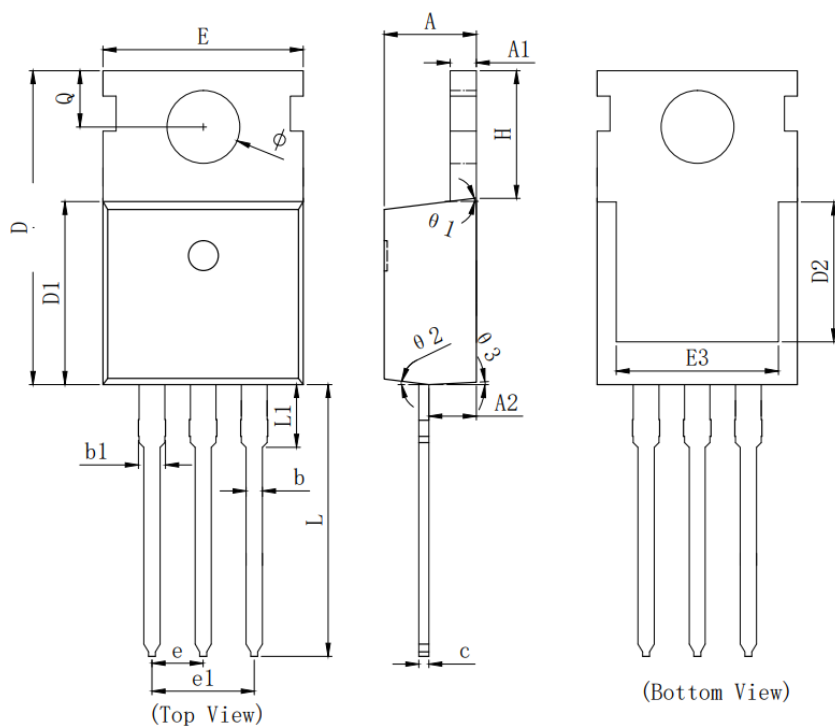


FIG.4: Instantaneous Reverse Characteristics



Package Outline Dimensions in millimeters



Dim.	Min.	Typ.	Max.
A	4.370	4.570	4.700
A1	1.250	1.300	1.400
A2	2.150	2.350	2.550
b	0.700	0.800	0.950
b1	1.170	1.270	1.470
c	0.450	0.500	0.600
D	15.100	15.600	16.100
D1	8.800	9.100	9.400
D2	5.500	6.300 REF	
E	9.700	10.000	10.300
E3	7.000	7.600 REF	
e	2.540 BSC		
e1	5.080 BSC		
L	13.200	13.500	13.800
L1		3.100	3.400
H	6.250	6.500	6.750
ϕ	3.400	3.600	3.800
Q	2.600	2.800	3.000
$\theta 1$	7° TYP		
$\theta 2$	7° TYP		
$\theta 3$	3° TYP		

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.