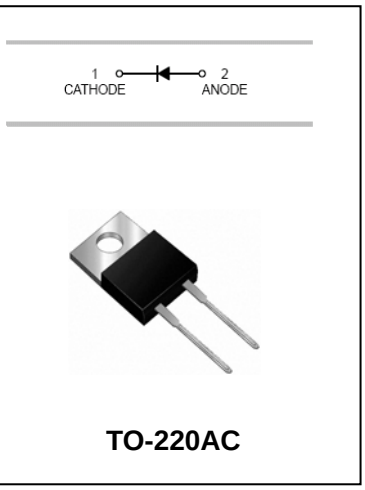
Super Fast Rectifiers USF2020

FEATURES

- Low cost.
- Low Leakage.
- Low Forward Voltage Drop.
- High Current Capability.
- Easily cleaned with Alcohol,Isopropanol and Similar solvents.
- The plastic material carries U/L recognition 94V-0.

Lead-free



TO-220AC

MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	USF2020	Unit
V_{RRM}	Recurrent Peak Reverse Voltage	200	V
V_{RMS}	RMS Voltage	140	V
V_{DC}	DC Blocking Voltage	200	V
$I_{F(AV)}$	Average Forward Rectified Current @T_A=100℃	20	A
I_{FSM}	Peak Forward Surge Current 8.3ms Single Half-sine-wave superimPosed on Rsted Load	125	A
T_j T_{stg}	Operating Junction and StorageTemperature Range	-55 to +150	℃

ELECTRICAL CHARACTERISTICS@ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	USF2020	UNIT
			MAX	
Reverse Current	I_R	V_R=V_{RRM},T_A=25℃ V_R=V_{RRM},T_A=150℃	5.0 250	μA
Forward Voltage	V_F	I_F=20A	0.975	V
Reverse Recovery Time	t_{rr}	I_F=0.5A,I_R=1A,I_{rr}=0.25A	25	ns

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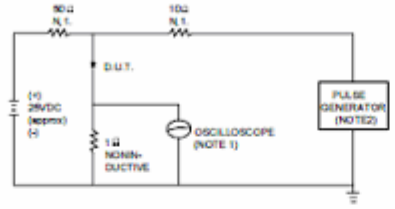
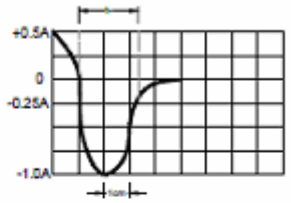
TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC





NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE =1MΩ. 22pF.
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω.

SET TIME BASE FOR 10/20 ns/cm

FIG.2 – PEAK FORWARD SURGE CURRENT

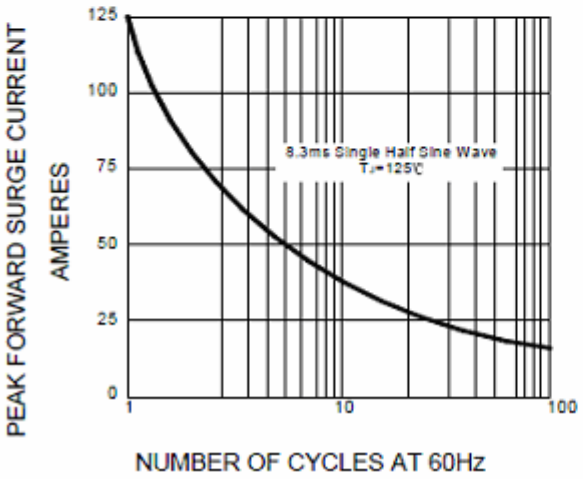
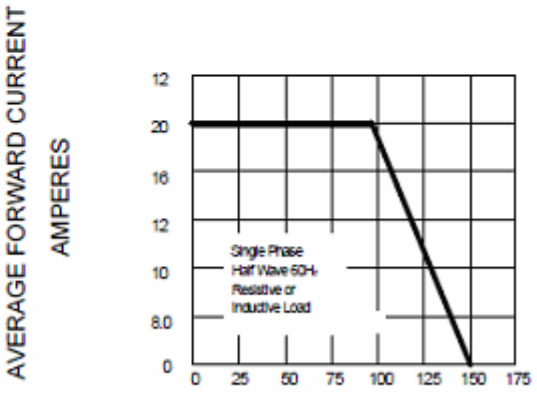


FIG.3 -FORWORD DERATING CURVE



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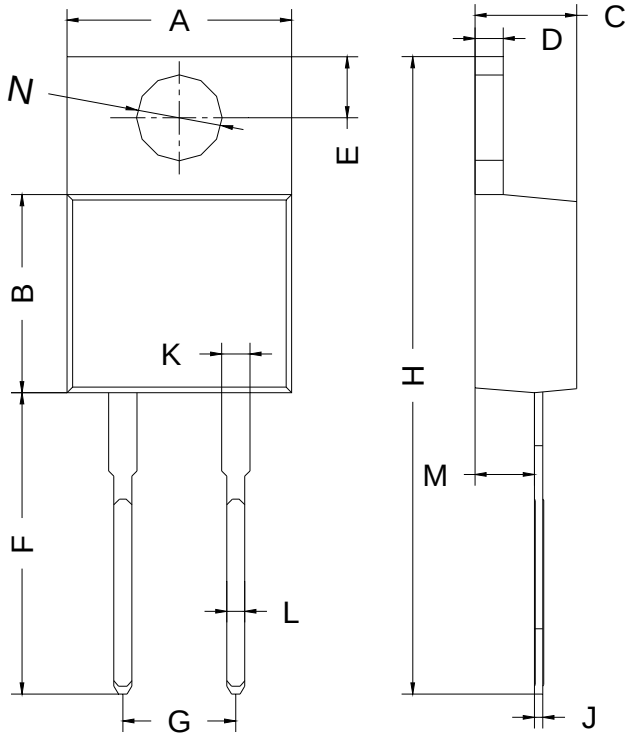
PACKAGE OUTLINE

Plastic surface mounted package TO-220AC



TO-220AC		
Dim	Min	Max
A	9.80	10.30
B	8.70	9.10
C	4.57 Typical	
D	1.27 Typical	
E	2.64	2.84
F	13.14	13.74
G	4.98	5.18
H	28.03	28.83
J	0.38 Typical	
K	1.22	1.32
L	0.71	0.91
M	2.50 Typical	
N	3.86 Typical	
All Dimensions in mm		