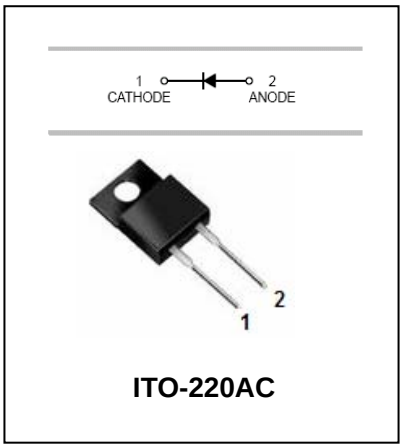
Super Fast Rectifiers SF2020F---SF2060F

FEATURES

- Low cost.
- Diffused junction.
- Low forwsrd voltage drop.
- High current capability.
- Easily cleaned with Alcohol,Isopropanol and Similar solvents.
- The plastic material carries U/L recognition 94V-0.

Lead-free



ITO-220AC

MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	SF 2020F	SF 2030F	SF 2040F	SF 2050F	SF 2060F	Unit
V_{RRM}	Recurrent Peak Reverse Voltage	200	300	400	500	600	V
V_{RMS}	RMS Voltage	140	210	280	350	420	V
V_{DC}	DC Blocking Voltage	200	300	400	500	600	V
$I_{(AV)}$	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	150					A
T_j T_{stg}	Operating Junction and StorageTemperature Range	-55 to +150					℃

Note：1.Thermal resistance from junction to ambient.

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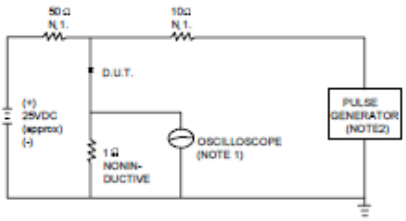
ELECTRICAL CHARACTERISTICS@ Ta=25℃ unless otherwise specified

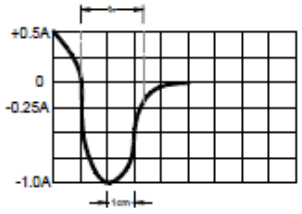
Parameter	Symbol	Test conditions	SF2020	SF2030-SF2040	SF2050-SF2060	UNIT
			MAX			
Reverse Current	I_R	$V_R=V_{RRM}, T_A=25℃$ $V_R=V_{RRM}, T_A=100℃$	5.0 250	10 400		μA
Forward Voltage	V_F	I_F=20A	0.98	1.3	1.7	V
Reverse Recovery Time	t_{rr}	I_F=0.5A,I_R=1A,I_{rr}=0.25A	35			ns

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 15ns/cm

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

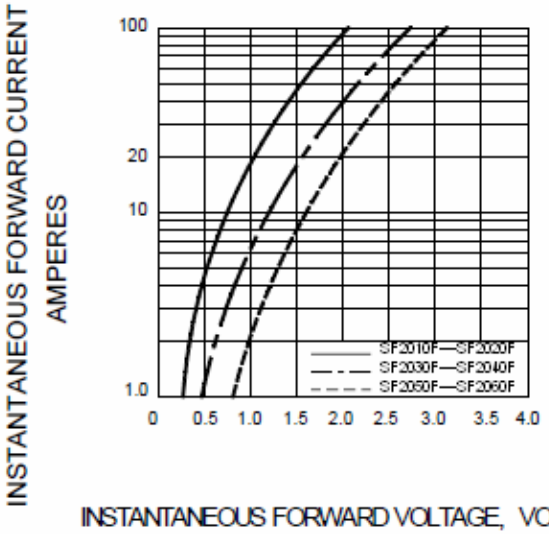
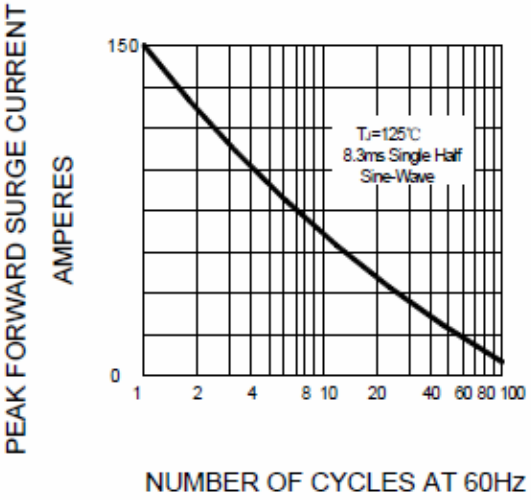


FIG.3 – PEAK FORWARD SURGE CURRENT



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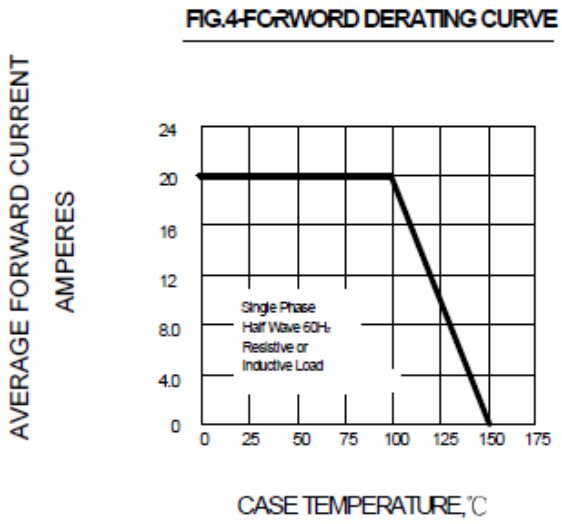
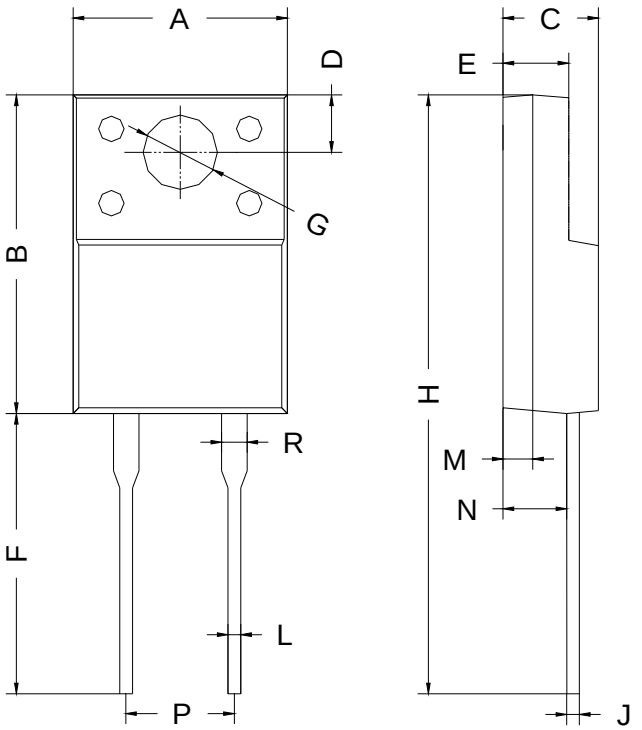


PACKAGE OUTLINE

Plastic surface mounted package ITO-220AC



ITO-220AC		
Dim	Min	Max
A	9.90	10.30
B	14.80	15.20
C	4.50 Typical	
D	2.70 Typical	
E	2.80	3.20
F	13.00	13.40
G	3.2 Typical	
H	28.00	28.40
J	0.60 Typical	
L	0.50	0.75
M	1.40 Typical	
N	2.90	3.10
P	5.00	5.20
R	1.20 Typical	
All Dimensions in mm		