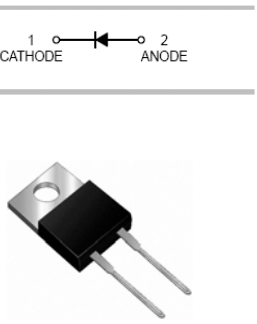
Super Fast Rectifiers SF820---SF860

FEATURES

- Low cost.
- Diffused junction.
- Glass passivated 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



TO-220AC

MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	SF820	SF830	SF840	SF850	SF860	Unit
V_{RRM}	Repetitive 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℃	8					A
I_{FSM}	Peak Forward Surge Current 8.3ms Single Half-sine-wave superimposed on Rsted Load	125					A
$R_{\theta JC}$	Typical Thermal Resistance Junction to Case	5					℃/W
T_j T_{stg}	Operating Junction and StorageTemperature Range	-55 to +150					℃

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ELECTRICAL CHARACTERISTICS@ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	SF820	SF830-SF840	SF850-SF860	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=8A	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 –TYPICAL FORWARD CHARACTERISTIC

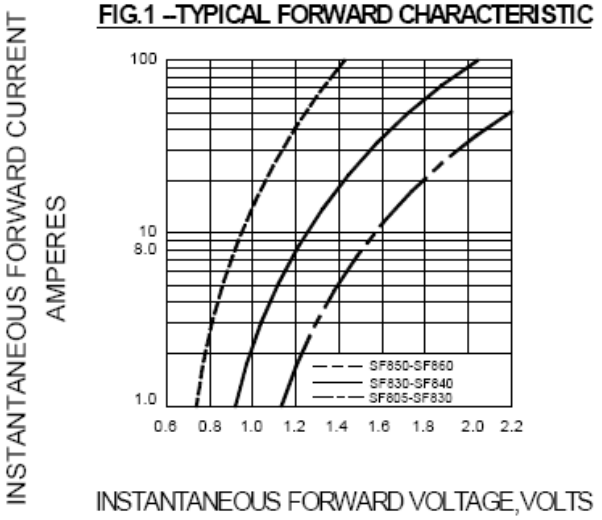


FIG.2 –TYPICAL REVERSE CHARACTERISTICS

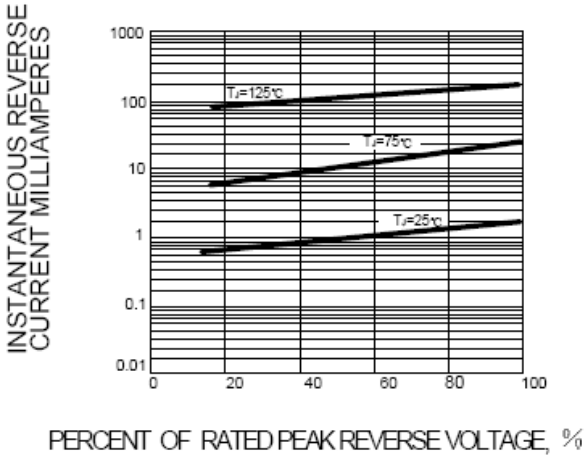


FIG.3 – PEAK FORWARD SURGE CURRENT

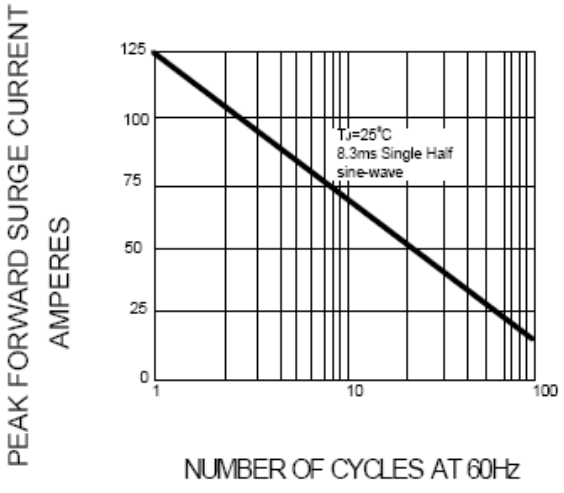
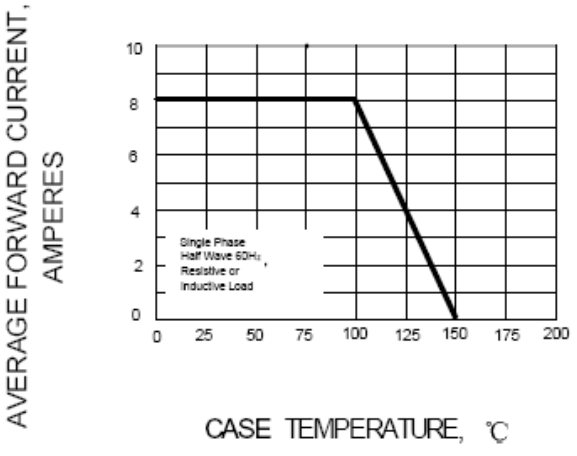


FIG.4 -- FORWARD DERATING CURVE



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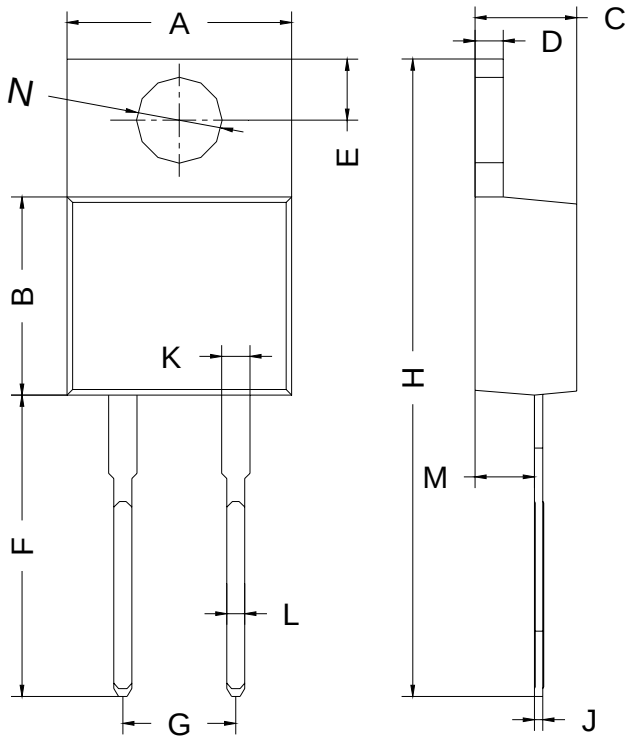
PACKAGE OUTLINE

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		