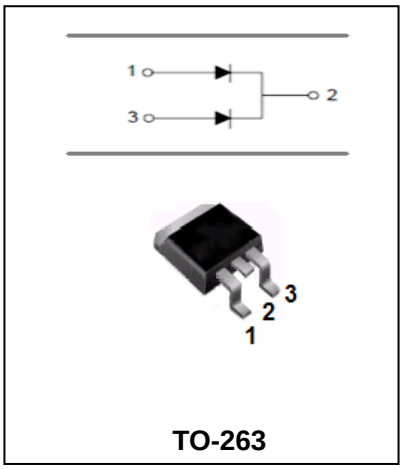
Super Fast Rectifier SF2020BC-SF2060BC

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-263

MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	SF 2020 BC	SF 2030 BC	SF 2040 BC	SF 2050 BC	SF 2060 BC	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	200	300	400	500	600	V
V_{RMS}	RMS Voltage	140	210	270	350	420	V
V_{DC}	DC Blocking Voltage	200	300	400	500	600	V
$I_{F(AV)}$	Average Forward Rectified Current @T_A=100℃	20					A
I_{FSM}	Peak Forward SurgeCurrent 8.3ms Single Half Sine-wave Superimosed on Rated Load	150					A
T_j T_{stg}	Operating Junction and Storage Temperature Range	-55 to +150					℃

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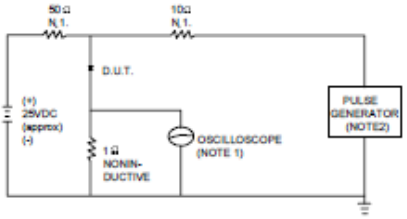
ELECTRICAL CHARACTERISTICS@ Ta=25℃ unless otherwise specified

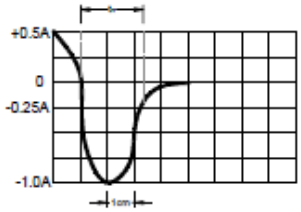
Parameter	Symbol	Test conditions	SF2020BC	SF2030BC - SF2040BC	SF2050BC-SF2060BC	UNIT
			MAX			
Reverse Current	I_R	$V_R=V_{RRM}, T_A=25℃$ $V_R=V_{RRM}, T_A=100℃$	5.0 250	10 400		μA
Forward Voltage	V_F	I_F=10A	0.98	1.3	1.7	V
Reverse recover time	t_{rr}	I_F=0.5A, I_R=1A, I_{rr}=0.25A	35			ns

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

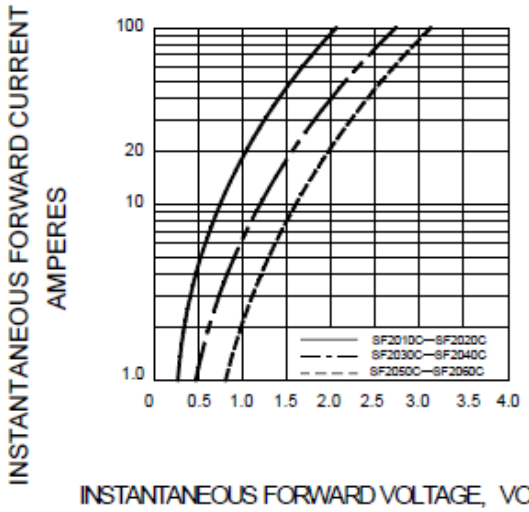
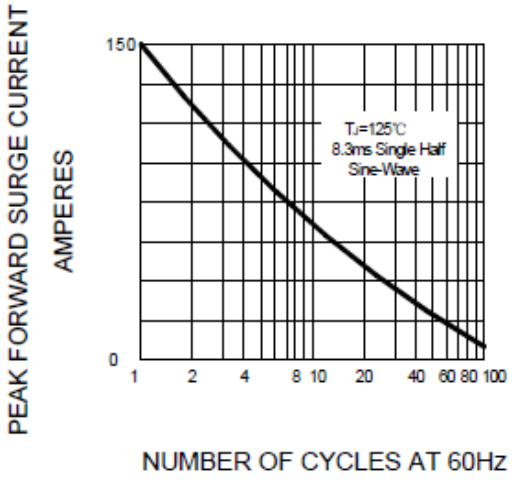


FIG.3 – PEAK FORWARD SURGE CURRENT



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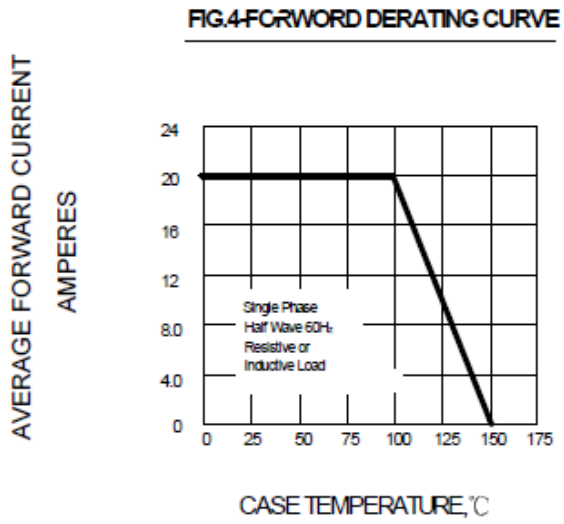
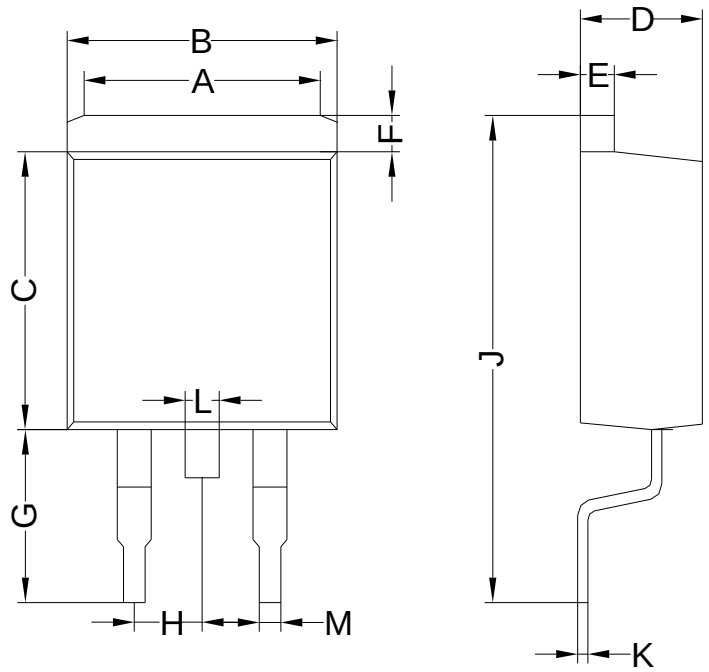


PACKAGE OUTLINE

Plastic surface mounted package TO-263



TO-263		
A	8.64	9.04
B	9.90	10.30
C	8.70	9.10
D	4.57 Typical	
E	1.27 Typical	
F	1.06	1.26
G	5.34	5.74
H	2.44	2.64
J	15.30	15.90
K	0.38 Typical	
L	1.17	1.37
M	0.71	0.91