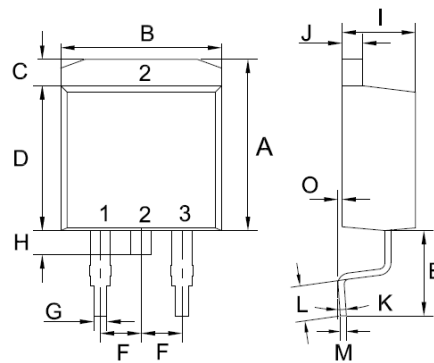


### Features

- Glass Passivated Die Construction
- Super-Fast Switching
- Low Forward Voltage Drop
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-0

### TO-263 (D<sup>2</sup>PAK)



Unit:mm		
DIM	MIN	MAX
A	10.44	10.84
B	9.81	10.21
C	1.44	1.84
D	8.80	9.20
E	4.46	4.66
F	2.44	2.64
G	0.61	1.01
H	0.70	1.30
I	4.27	4.87
J	1.07	1.47
K	0°	8°
L	2.10	2.50
M	0.30	0.46
O	0	0.25

### Mechanical Data

- Case: TO-263(D<sup>2</sup>PAK), Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Mounting Position: Any
- **Lead Free: For RoHS / Lead Free Version**

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	SFB 1010	SFB 1020	SFB 1030	SFB 1040	SFB 1050	SFB 1060	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>							V
Working Peak Reverse Voltage	V <sub>RWM</sub>	100	200	300	400	500	600	
DC Blocking Voltage	V <sub>R</sub>							
RMS Reverse Voltage	V <sub>R(RMS)</sub>	70	140	210	280	350	420	V
Average Rectified Output Current @T <sub>C</sub> = 100°C	I <sub>o</sub>	10.0						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	90						A
Forward Voltage @I <sub>F</sub> = 10.0A	V <sub>FM</sub>	1.0	1.3		1.7			V
Peak Reverse Current @T <sub>A</sub> = 25°C	I <sub>RM</sub>	10						μA
At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C		400						
Reverse Recovery Time (Note 1)	t <sub>rr</sub>	35						nS
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	200						pF
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-55 to +150						°C

Note: 1. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RR</sub> = 0.25A.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

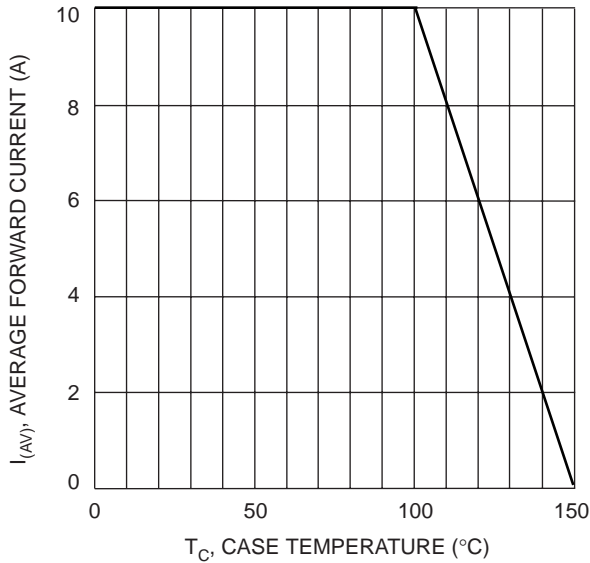


Fig. 1 Forward Current Derating Curve

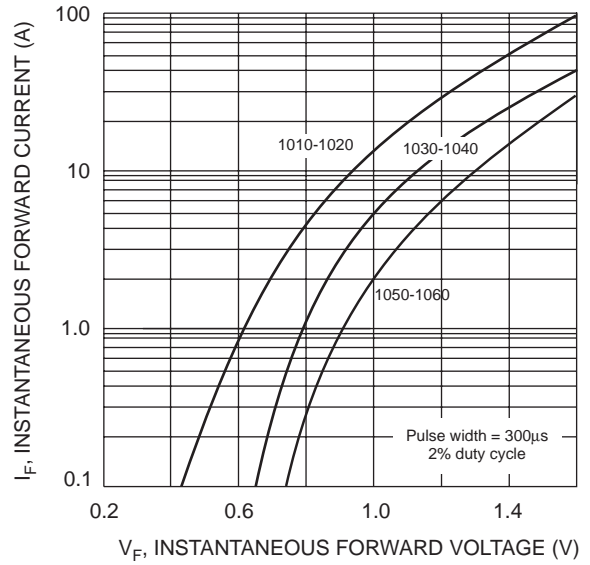


Fig. 2 Typical Forward Characteristics

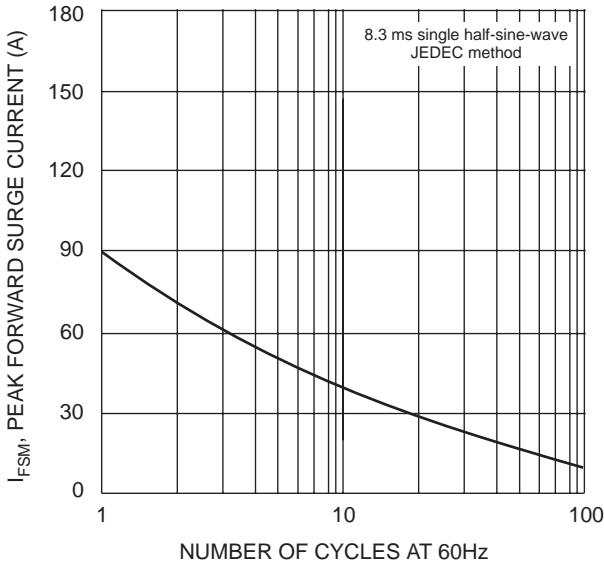


Fig. 3 Max Non-Repetitive Surge Current

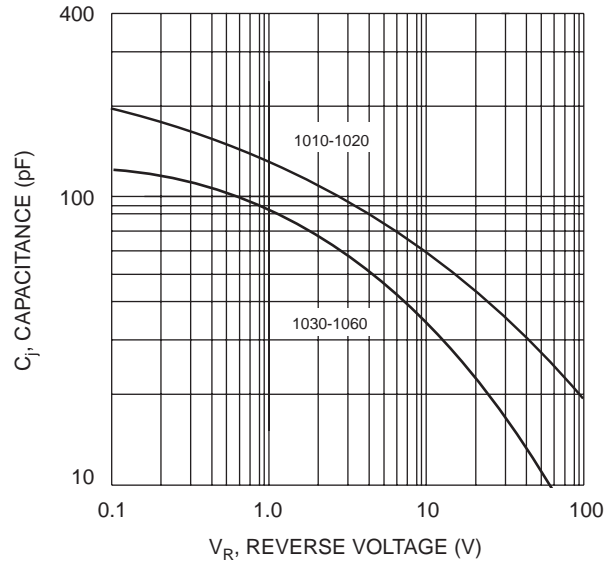


Fig. 4 Typical Junction Capacitance