



SINLOON®
POWER SEMICONDUCTORS

ER800F ~ ER806F

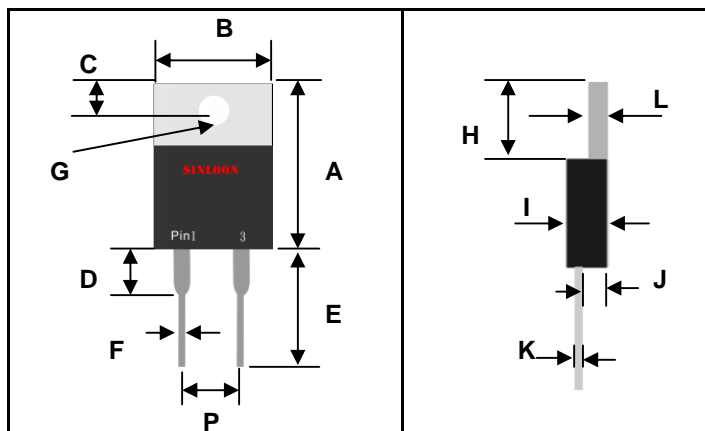
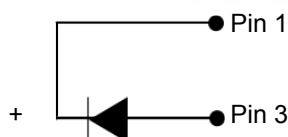
8.0A Glass Passivated Superfast Rectifier

FEATURE:

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

MECHANICAL DATA

- ◆ Cass: ITO-220A, Full Molded Plastic.
- ◆ Terminals: Solder Plated, Solderable per MIL-STD-202, Method 208
- ◆ Polarity: Cathode Band or Cathode Notch
- ◆ Marking: Type Number
- ◆ Weight: 2.24 grams (approx)
- ◆ Lead Free: For RoHS / Lead free Version
- ◆ Add "LF" suffix to part Number.



ITO-220A

Dim.	Min.	Max.
A	14.60	15.40
B	9.70	10.30
C	2.55	2.85
D	3.560	4.160
E	13.00	13.80
F	0.30	0.90
G	Φ3.00	Φ3.50
H	6.300	6.900
I	4.200	4.800
J	2.500	2.900
K	0.360	0.800
L	2.900	3.300
P	4.830	5.330

All Dimensions in mm

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS @TA = 25°C unless otherwise specified

Characteristic	Symbol	ER800F	ER801F	ER801AF	ER802F	ER803F	ER804F	ER806F	Unit
Peak Repetitive Reverse Voltage	VRRM	50	100	150	200	300	400	600	V
Working Peak Reverse Voltage	VRWM								
DC Blocking Voltage	VR								
RMS Reverse Voltage	VR(RMS)	35	70	105	140	210	280	420	V
Average Rectified Output Current @Tc=105°C	IO	8.0							A
Non-Repetitive Peak Forward Surge Current	IFSM	125							A
8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)									
Forward Voltage	@IF=8.0A	VFM			0.95	1.30	1.70	V	
Peak Reverse Current	@TA=25°C	IRM							uA
At Rated DC Blocking Voltage	@TA=125°C								
Reverse Recovery Time (Note 1)	Trr	35			50			nS	
Reverse Recovery Time (Note 2)	Cj	80			50			pF	
Storage Temperature Range	TSTG	-55 to +150							°C

- Note:** 1). Measured with $I_F = 0.5A$, $I_R = 1.0A$, $IRR = 0.25A$.
2). Measure at 1.0 MHz and Applied reverse voltage of 4.0V.DC.





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DATA CURVE

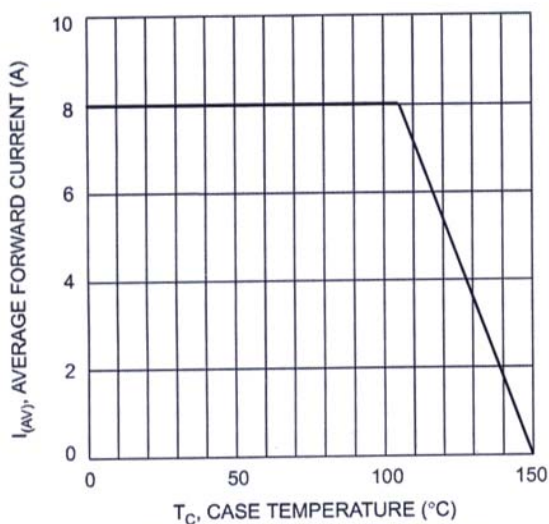


Fig. 1 Forward Current Derating Curve

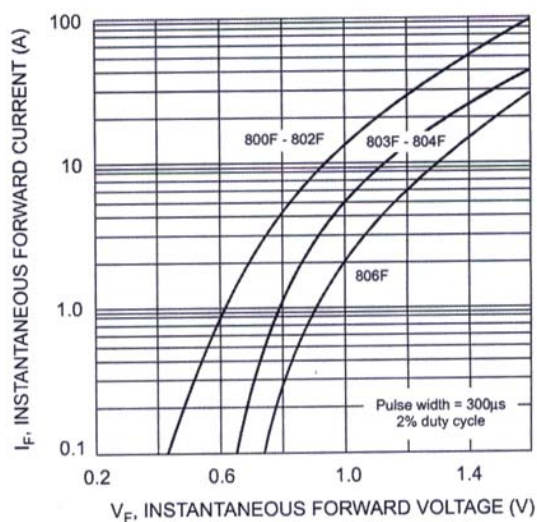


Fig. 2 Typical Forward Characteristics

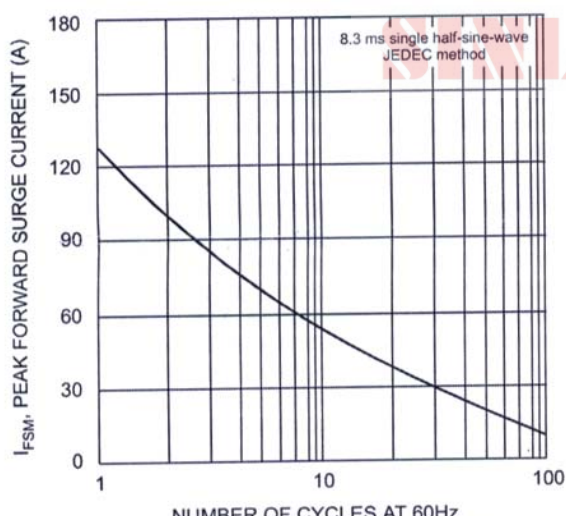


Fig. 3 Max Non-Repetitive Surge Current

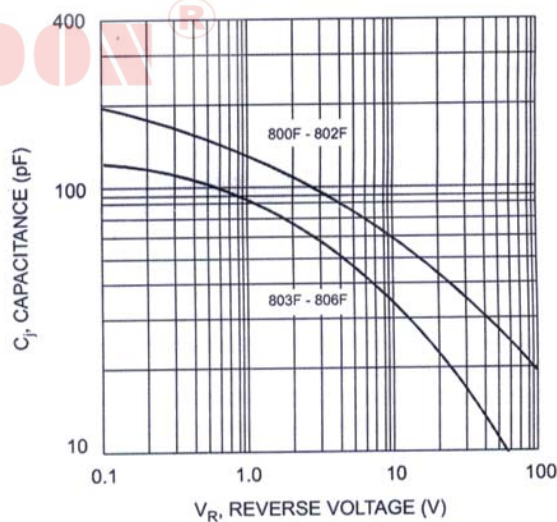


Fig. 4 Typical Junction Capacitance



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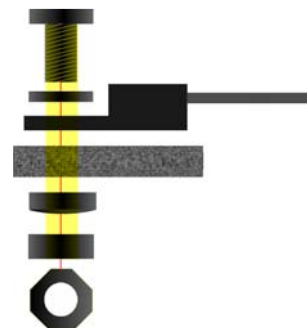
ER800F ~ ER806F

8.0A Glass Passivated Superfast Rectifier

RECOMMENDED SCREW MOUNTING ARRANGEMENT

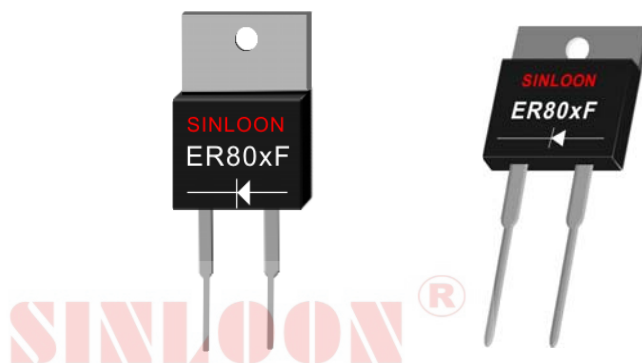
- ◆ The full molded plastic package affords a major reduction of hardware as compared to a standard TO-220 package. However, precautions should be made in mounting procedure.
- ◆ A conical washer should be used to apply proper force to the device, Screw should not be tightened with any type of air-forced torque or equipment that may cause crack on device package.
- ◆ A layer of thermal grease or thermal pad in the interface will be considerably helpful for heat dissipation

6-32 HEX Head Screw
↓
Plain Washer
↓
Rectifier Diode
↓
Heatsink
↓
Conical Washer
↓
6-32 HEX Nut



MARKING INFORMATION

XXX = Marking Logo
ER80xF = Device Number
x = 0, 1, 1A, 2, 3, 4, or 6.
Polarity = As Marked on body.



PACKAGING INFORMATION

Tube Size LxWXH (mm)	Quantity (Pcs)	Inner Box Size LxWXH (mm)	Quantity (Pcs)	Carton Size LxWXH (mm)	Quantity (Pcs)	Approx. Gross Weight (Kg)
525x31x6	50	555x145x95	2000	572x306x218	8000	19

PACKAGING INFORMATION

Product No.	Package Type	Carton Quantity
ER800F	IT0-220A	50 Units/Tube
ER801F	IT0-220A	50 Units/Tube
ER801AF	IT0-220A	50 Units/Tube
ER802F	IT0-220A	50 Units/Tube
ER803F	IT0-220A	50 Units/Tube
ER804F	IT0-220A	50 Units/Tube
ER806F	IT0-220A	50 Units/Tube

- 1). Ordering Information
Shipping quantity given is for minimum packing quantity only, For minimum. Order quantity, please consult the Sales Department.
- 2). To Order RoHS ./ Lead Free version (with Lead Free finish) . add "LF" suffix. To part uimper above. For example. SB800F-LF

