

#### SUPERFAST RECOVERY RECTIFIERS

50 to 400 Volt CURRENT 8 Ampere

## VOLTAGE FEATURES

- Superfast recovery times-epitaxial construction.
- Low forward voltage, high current capability.
- Hermetically sealed.
- · Low leakage.
- High surge capability.
- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

#### **MECHANICAL DATA**

- Case: Molded plastic, ITO-220AC
- Terminals: Axial leads, solderable to MIL-STD-750, Method 2026
- · Polarity: As marking
- Weight: 0.055 ounces, 1.56 grams.

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

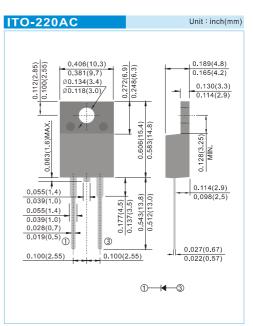
PARAMETER	SYMBOL	ER800F	ER801F	ER801AF	ER802F	ER803F	ER804F	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	50	100	150	200	300	400	V
Maximum RMS Voltage	V <sub>rms</sub>	35	70	105	140	210	280	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	150	200	300	400	V
Maximum Average Forward Current at T <sub>c</sub> =75°C	I <sub>F(AV)</sub>	8					A	
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	I <sub>fsm</sub>	125				A		
Maximum Forward Voltage at 8A (Note 1)		0.95 1.3			V			
Maximum DC Reverse Current at Rated DC Blocking T <sub>J</sub> =25°C Voltage T <sub>J</sub> =100°C	I <sub>R</sub>	1 300					μA	
Maximum Reverse Recovery Time (Note 1)		35					ns	
Typical Junction Capacitance (Note 2)		65					pF	
Typical Thermal Resistance (Note 3)		3					°C / W	
Operating Junction and Storage Temperature Range		-55 to +150				°C		

#### NOTES :

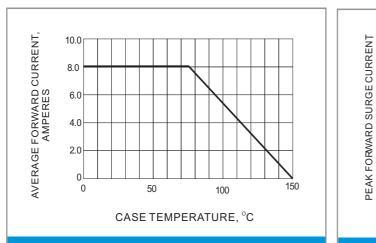
1. Pulse Test with PW=300µsec, 2% Duty Cycle.

2. Reverse Recovery Tset Conditions :  $I_F=0.5A$ ,  $I_R=-1A$ ,  $I_{T}=-0.25A$ 

3. Mounted on P.C. Board with  $14 \mbox{mm}^2$  (0.013 \mbox{mm} thick) copper pad areas.

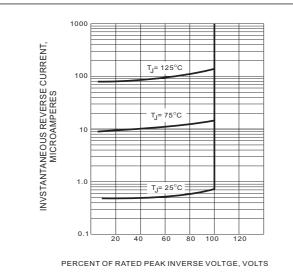




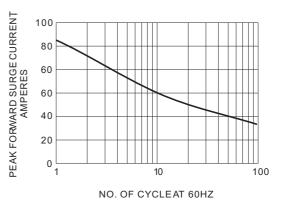


## **RATING AND CHARACTERISTIC CURVES**

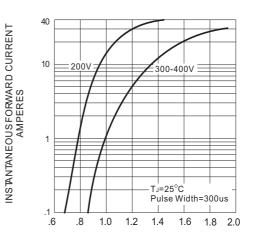
Fig.1-FORWARD CURRENT DERATING CURVE



## Fig.3-TYPICAL REVERSE CHARACTERISTICS

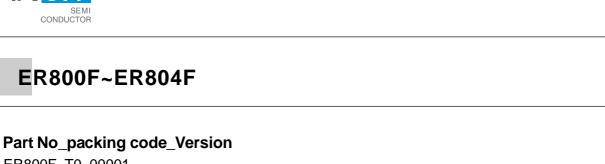


### Fig.2-MAXIMUM NON-REPETITIVE SURGE CURRENT



INSTANTANEOUSFORWARD VOLTAGE, VOLTS

Fig.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS 



ER800F\_T0\_00001

## For example :

RB500V-40\_R2\_00001

T Part No.

Serial number 

Version code means HF

- Packing size code means 13"
- Packing type means T/R

Packing Code XX				Version Code XXXXX				
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code		
Tape and Ammunition Box (T/B)	Α	N/A	0	HF	0	serial number		
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number		
Bulk Packing (B/P)	В	13"	2					
Tube Packing (T/P)	т	26mm	X					
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y					
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U					
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D					





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