



# UF150 ~ UF1510

## ULTRAFAST RECOVERY RECTIFIERS

**VOLTAGE** 50 to 1000 Volts **CURRENT** 1.5 Amperes

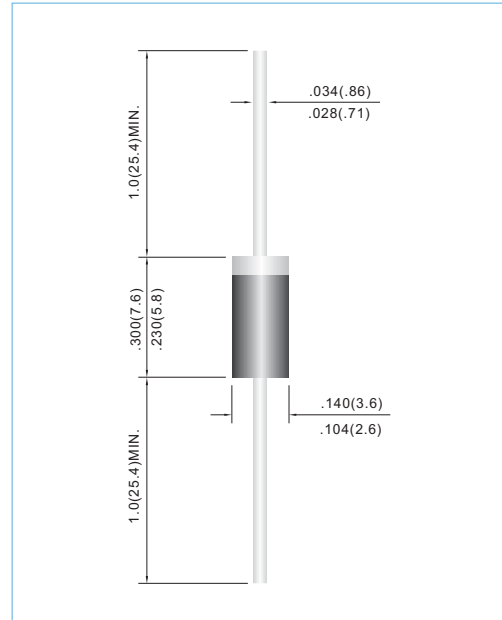
**DO-15** Unit: inch(mm)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Exceeds environmental standards of MIL-S-19500/228.
- Ultra Fast recovery for high efficiency.
- Lead free in compliance with EU RoHS 2011/65/EU directives

### MECHANICAL DATA

- Case: Molded plastic, DO-15
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Band denotes cathode
- Mounting Position: Any
- Weight: 0.014 ounce, 0.397 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

| PARAMETER  | SYMBOL          | UF150       | UF151 | UF152 | UF154 | UF156 | UF158 | UF1510 | UNITS                       |
|--|-----------------|-------------|-------|-------|-------|-------|-------|--------|-----------------------------|
| Maximum Recurrent Peak Reverse Voltage   | $V_{RRM}$       | 50          | 100   | 200   | 400   | 600   | 800   | 1000   | V                           |
| Maximum RMS Voltage  | $V_{RMS}$       | 35          | 70    | 140   | 280   | 420   | 560   | 700    | V                           |
| Maximum DC Blocking Voltage  | $V_{DC}$        | 50          | 100   | 200   | 400   | 600   | 800   | 1000   | V                           |
| Maximum Average Forward Current .375"(9.5mm) lead length at $T_A=55^\circ\text{C}$                     | $I_{F(AV)}$     | 1.5         |       |       |       |       |       |        | A                           |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)      | $I_{FSM}$       | 50          |       |       |       |       |       |        | A                           |
| Maximum Forward Voltage at 1.5A  | $V_F$           | 1.0         |       | 1.1   |       | 1.7   |       | V      |                             |
| Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=100^\circ\text{C}$ | $I_R$           |             |       |       | 10.0  |       | 500   |        | $\mu\text{A}$               |
| Typical Junction capacitance (Note 1)  | $C_J$           | 25          |       |       |       |       |       |        | pF                          |
| Typical Thermal Resistance(Note 2)   | $R_{\theta JA}$ | 50          |       |       |       |       |       |        | $^\circ\text{C} / \text{W}$ |
| Maximum Reverse Recovery Time (Note 3)   | $t_{rr}$        | 50          |       |       |       | 75    |       |        | ns                          |
| Operating Junction and Storage Temperature Range   | $T_J, T_{STG}$  | -55 to +150 |       |       |       |       |       |        | $^\circ\text{C}$            |

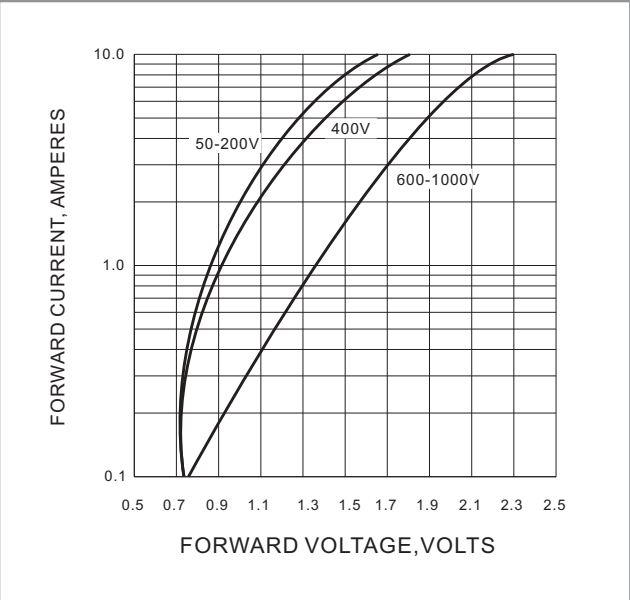
**NOTES:**

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Thermal Resistance from Junction to Ambient.
3. Reverse Recovery Time  $I_F=.5\text{A}$  ,  $I_R=1\text{A}$  ,  $I_{rr}=.25\text{A}$

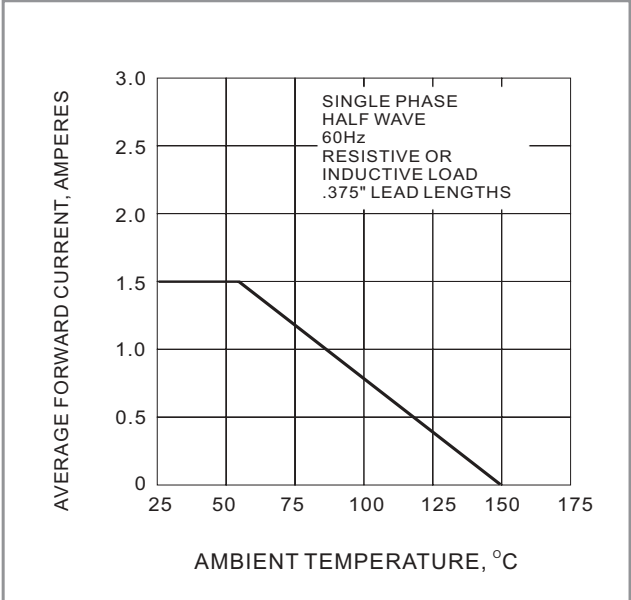


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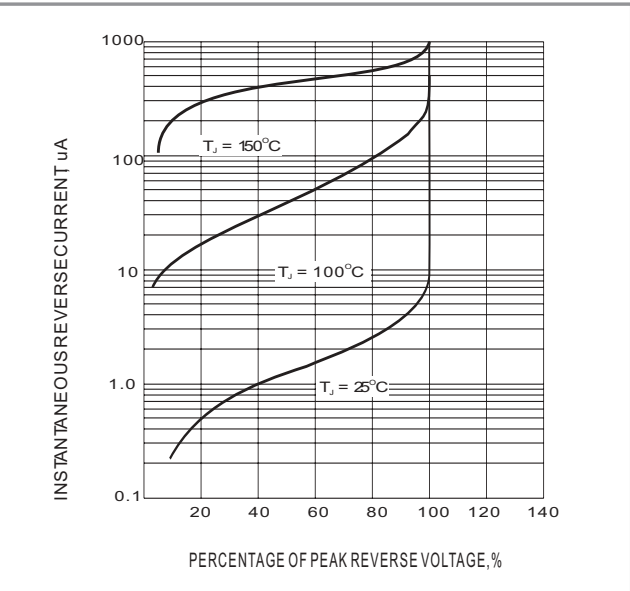
## RATING AND CHARACTERISTIC CURVES



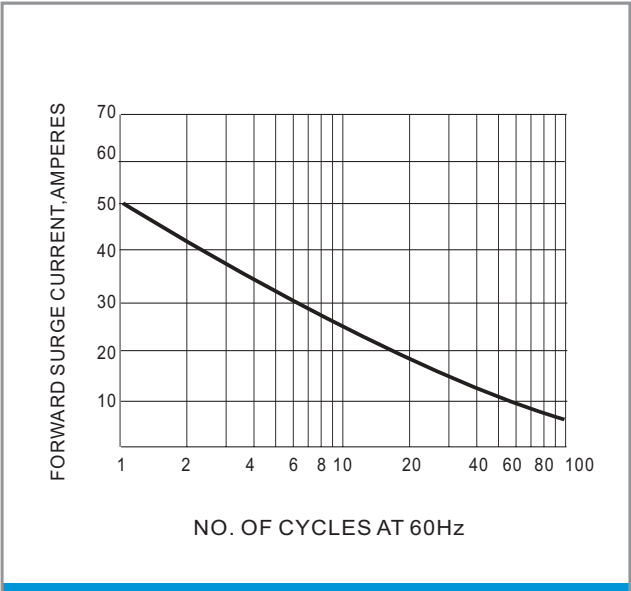
**Fig.1 FORWARD CHARACTERISTICS**



**Fig.2 FORWARD CURRENT DERATING CURVE**



**Fig.3-TYPICAL REVERSE CHARACTERISTIC**



**Fig.4 PEAK FORWARD SURGE CURRENT**



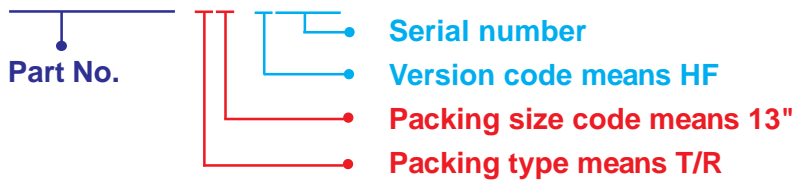
## UF150 ~ UF1510

### Part No\_packing code\_Version

UF150\_AY\_00001  
 UF150\_AY\_10001  
 UF150\_B0\_00001  
 UF150\_B0\_10001  
 UF150\_R2\_00001  
 UF150\_R2\_10001

For example :

**RB500V-40\_R2\_00001**



| Packing Code <b>XX</b>               |                      |                                  |                      | Version Code <b>XXXXX</b> |                      |                                       |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| 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)        | <b>A</b>             | N/A                              | <b>0</b>             | <b>HF</b>                 | <b>0</b>             | serial number                         |
| Tape and Reel (T/R)                  | <b>R</b>             | 7"                               | <b>1</b>             | <b>RoHS</b>               | <b>1</b>             | serial number                         |
| Bulk Packing (B/P)                   | <b>B</b>             | 13"                              | <b>2</b>             |                           |                      |                                       |
| Tube Packing (T/P)                   | <b>T</b>             | 26mm                             | <b>X</b>             |                           |                      |                                       |
| Tape and Reel (Right Oriented) (TRR) | <b>S</b>             | 52mm                             | <b>Y</b>             |                           |                      |                                       |
| Tape and Reel (Left Oriented) (TRL)  | <b>L</b>             | PANASERT T/B CATHODE UP (PBCU)   | <b>U</b>             |                           |                      |                                       |
| FORMING                              | <b>F</b>             | PANASERT T/B CATHODE DOWN (PBCD) | <b>D</b>             |                           |                      |                                       |



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