



## Fast Recovery Rectifiers

Reverse Voltage - 50 to 1000 Volts  
Forward Current - 1.5 Amperes

### Features

- Fast switching for high efficiency
- Low reverse leakage current
- High current capability
- Low forward voltage drop
- Low cost
- Meet UL flammability classification 94V-0

### Mechanical Data

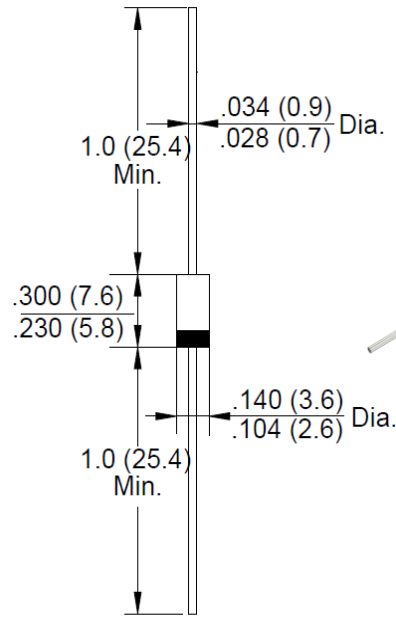
- Case: JEDEC DO-15 molded plastic
- Polarity: Color band denotes cathode
- Mounting position: Any

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

### Applications

- For use in SMPS, high frequency inverters, PWM and polarity protection applications

DO-15



RoHS  
COMPLIANT

Package Outline Dimensions in Inches (Millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	FR151	FR152	FR153	FR154	FR155	FR156	FR157	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T <sub>A</sub> =75 °C	I(AV)	1.5							A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	50							A
Peak Forward Voltage at 1.5A DC (Note1)	V <sub>F</sub>	1.3							V
Maximum DC Reverse Current @T <sub>J</sub> =25°C	I <sub>R</sub>	5.0							μA
at Rated DC Blocking Voltage @T <sub>J</sub> =100°C		100							
Maximum Reverse Recovery Time (Note 2)	T <sub>rr</sub>	150			250		500		nS
Typical Junction Capacitance (Note3)	C <sub>J</sub>	30			20				pF
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	25							°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

Notes: 1. 300uS pulse width, 2%duty cycle.

2. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>RR</sub>=0.25A .

3. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

4. The typical data above is for reference only.



Fig. 1 - Forward Current Derating Curve

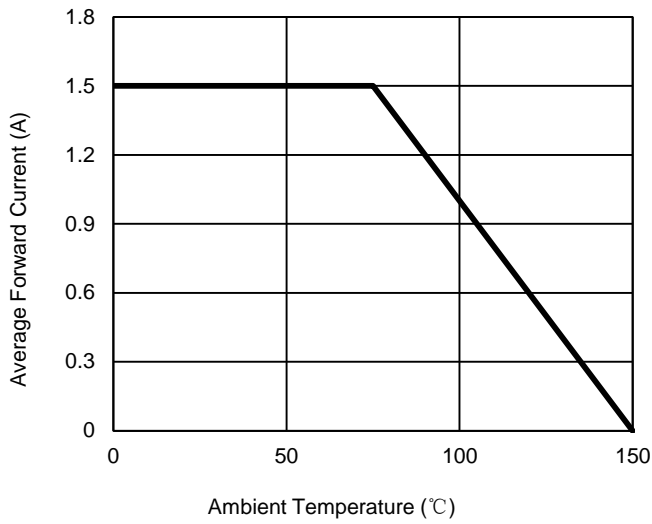


Fig. 2 - Maximum Non-Repetitive Surge Current

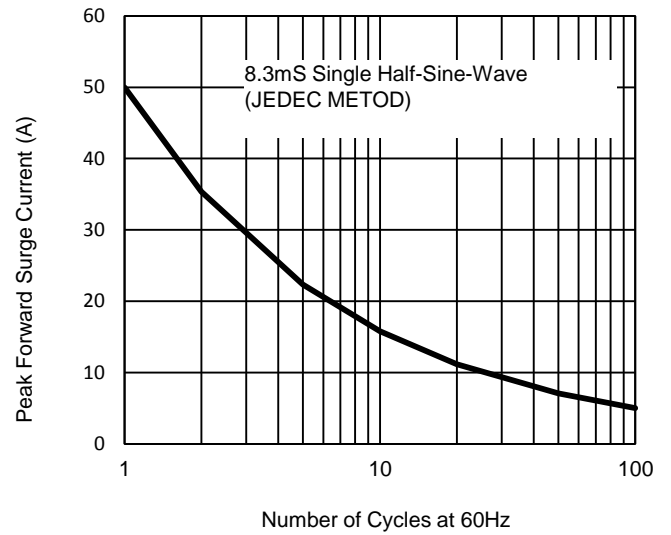


Fig. 3 - Typical Reverse Characteristics

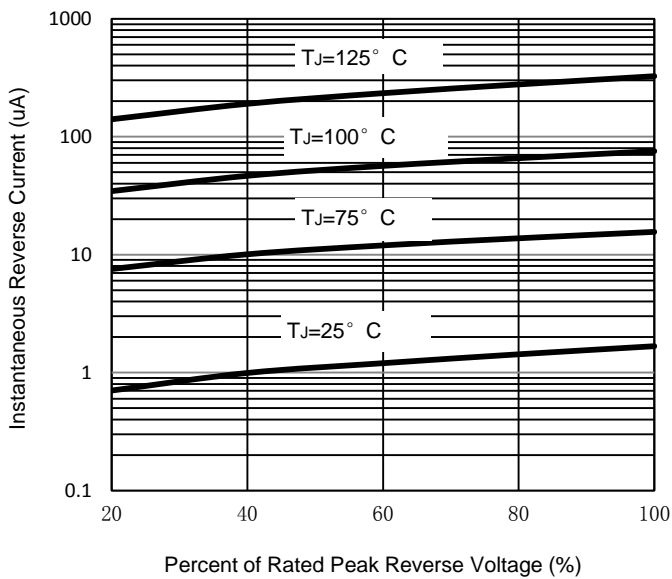


Fig. 4 - Typical Forward Characteristics

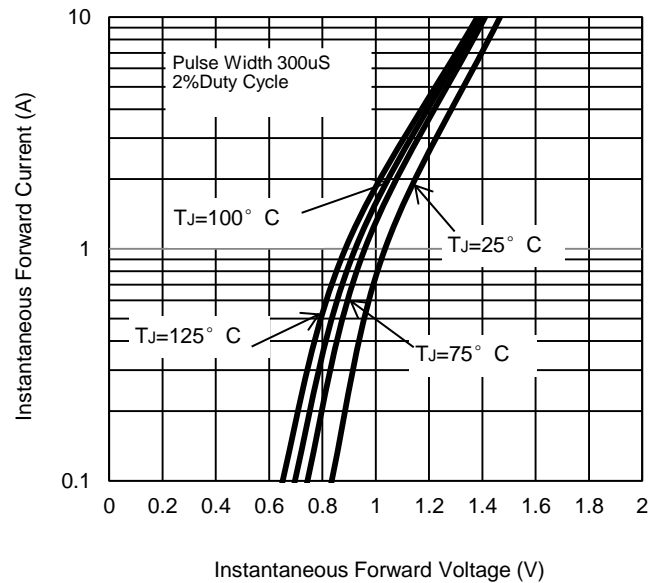
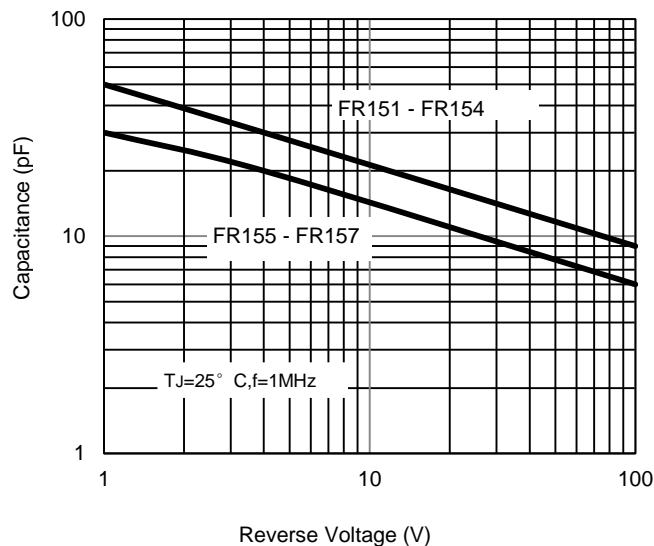


Fig 5 - Typical Junction Capacitance



The curve above is for reference only.



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