

**Surface Mount Fast Recovery
Glass Passivated Rectifiers****Reverse Voltage - 50 to 1000 Volts****Forward Current - 1.0 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

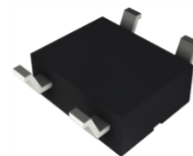
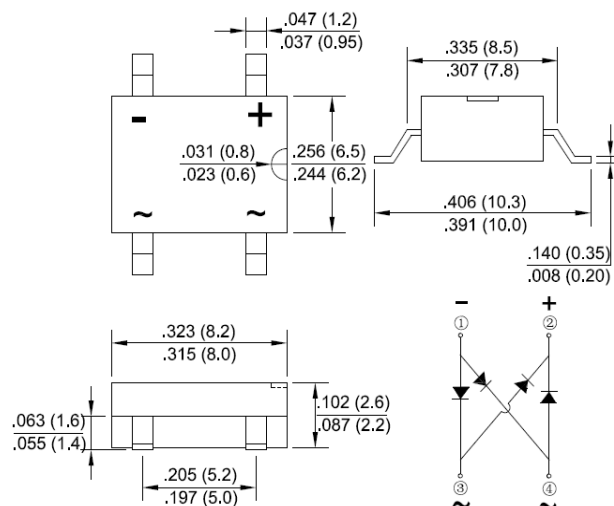
- Polarity: Symbol marked on body

- 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

DFS**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	FDF005S	FDF01S	FDF02S	FDF04S	FDF06S	FDF08S	FDF10S	Unit
Maximum Repetitive 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 Rectified Current @Tc=120℃	I(AV)	1.0							A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	30							A
I ² t Rating for Fusing (t<8.3mS)	I ² t	3.7							A ² s
Peak Forward Voltage per Diode at 1.0A DC	V _F	1.3							V
Maximum DC Reverse Current at Rated @T _J =25℃	I _R	5							μA
DC Blocking Voltage per Diode @T _J =125℃		200							
Maximum Reverse Recovery Time (Note 1)	T _{rr}	150				250	500		nS
Typical Thermal Resistance to Ambient (Note2)	R _{θJA}	72							℃/W
	R _{θJL}	13							
Operating Junction Temperature Range	T _J	-55 to +150							℃
Storage Temperature Range	T _{STG}	-55 to +150							℃

Notes: 1. Measured with I_F=0.5A, I_R=1A, I_{RR}=0.25A .

2. The typical data above is for reference only .



Fig. 1 - Forward Current Derating Curve

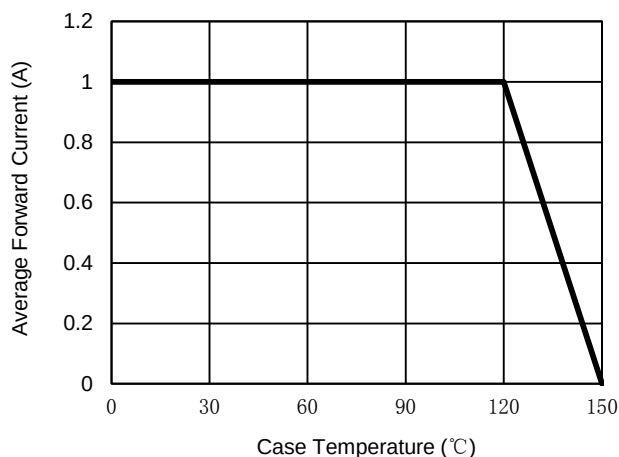


Fig. 2 - Maximum Non-Repetitive Surge Current

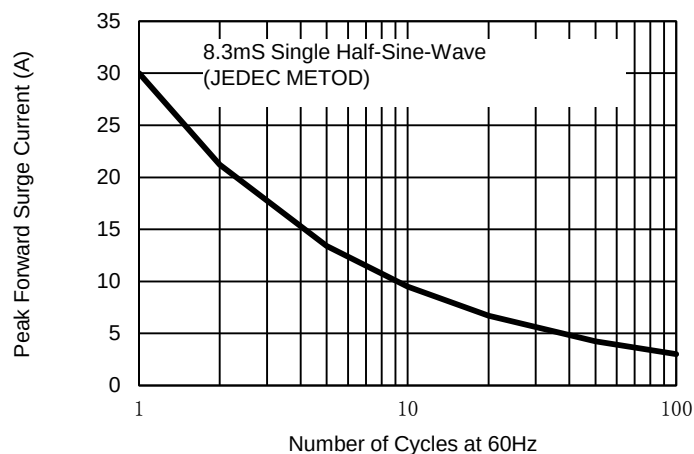


Fig. 3 - Typical Reverse Characteristics

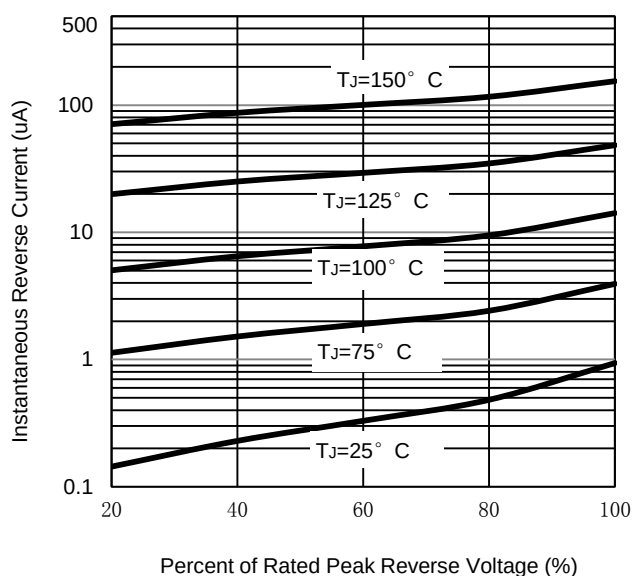
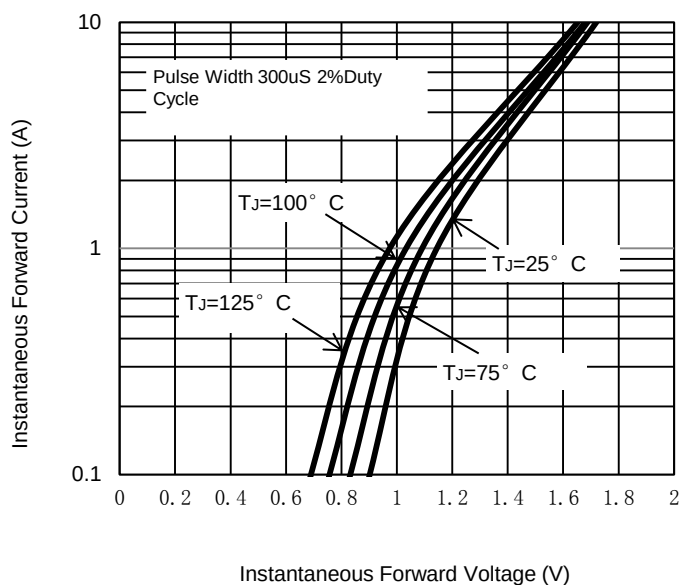


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.



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