



FDB101S thru FDB107S

SURFACE MOUNT FAST RECOVERY GLASS PASSIVATED RECTIFIERS

REVERSE VOLTAGE - 50 to 1000 Volts
FORWARD CURRENT - 1.0 Ampere

FEATURES

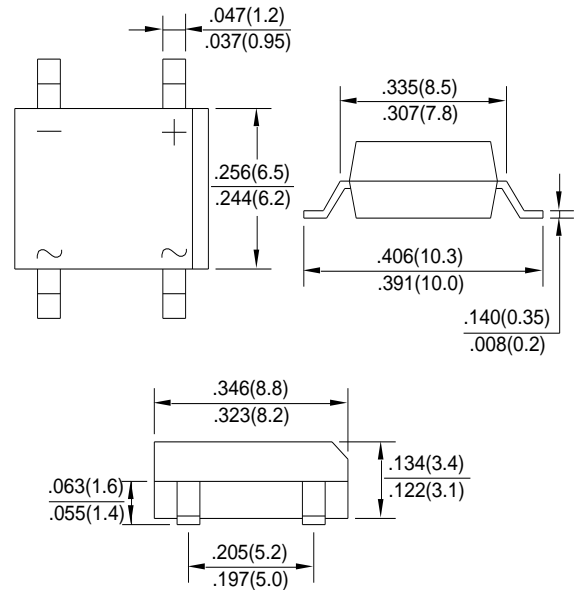
- Fast switching for high efficiency
- Low cost
- Diffused junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

MECHANICAL DATA

- Polarity: As marked on Body
- Weight: 0.02 ounces, 0.38 grams
- Mounting position: Any

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

DBS



Dimensions in inches and (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	FDB	FDB	FDB	FDB	FDB	FDB	FDB	UNIT
		101S	102S	103S	104S	105S	106S	107S	
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 Rectified Current @ T _A =40 °C	I(AV)	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I _{FSM}	30							A
Peak Forward Voltage at 1.0A DC	V _F	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T _A =25 °C	I _R	5.0							μA
@ T _A =125 °C		500							
Maximum Reverse Recovery Time(Note 1)	T _{RR}	150			250	500		nS	
Typical Thermal Resistance (Note2)	R _{θJA}	40							°C/W
Operating Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

NOTES: 1.Reverse Recovery Test Conditions: I_F=0.5A, I_R=1A, I_{RR}=0.25A.

2.Thermal resistance for junction to ambient and from Junction to Lead Mounted on P.C.B.with 0.5"*0.5"(13mm*13mm) Copper Pads.

3.The typical data above is for reference only.



FIG. 1 – FORWARD CURRENT DERATING

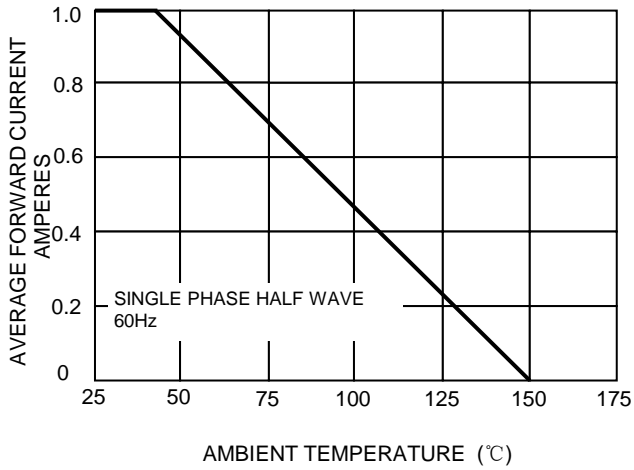


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

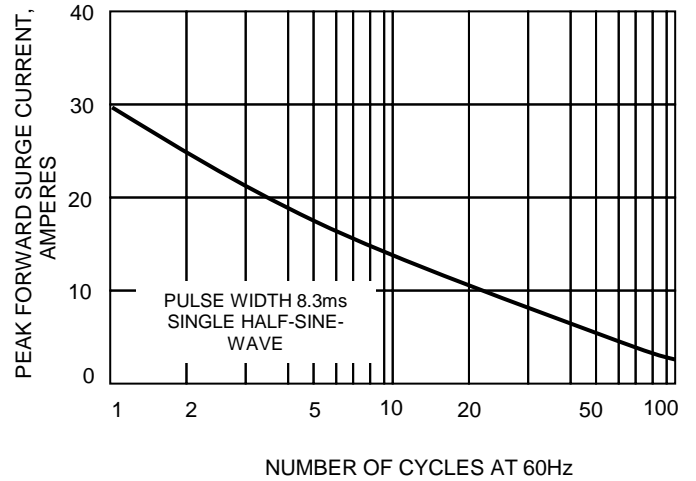


FIG.3-TYPICAL FORWARD CHARACTERISTICS

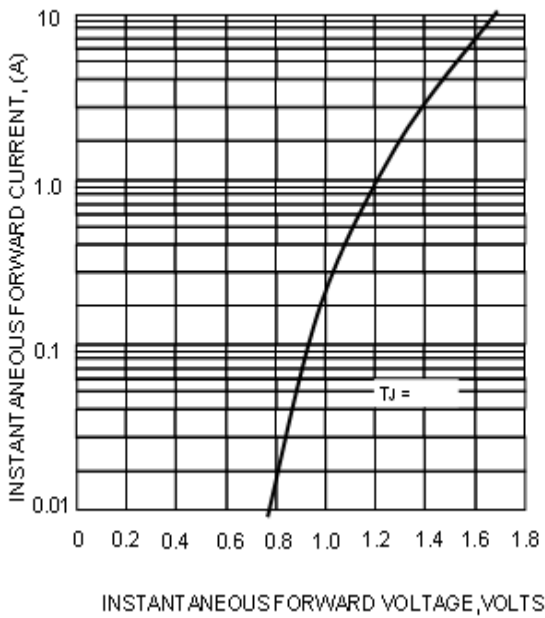
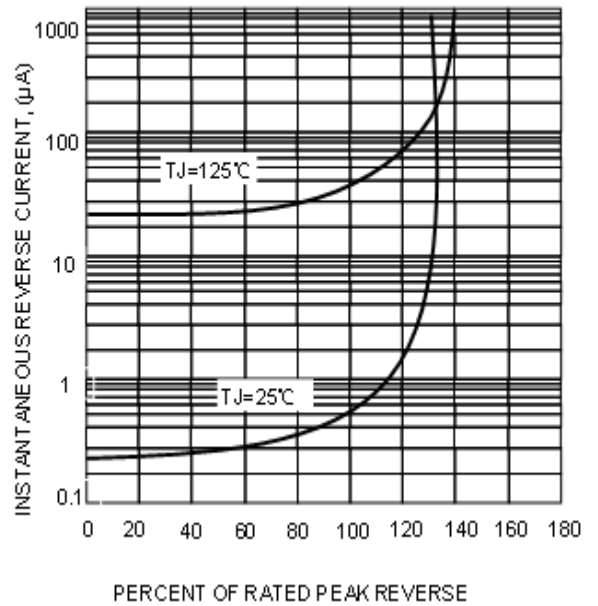


FIG.4-TYPICAL REVERSE CHARACTERISTICS



The cruve graph is for reference only.



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