

DF15005S THRU DF1510S

1.5 Amp Surface Mount Glass Passivated Bridge Rectifiers

Features

- Glass passivated chip
- Ideal for automatic placement
- High surge forward current capability
- Reliable low cost construction utilizing molded plastic technique
- Lead tin plated copper
- Meet UL flammability classification 94V-0

Mechanical Data

- Polarity: Symbol marked on body
- Mounting position: Any

Applications

- General purpose use in AC/DC bridge full wave rectification, for SMPS, lighting ballaster, adapter, etc.

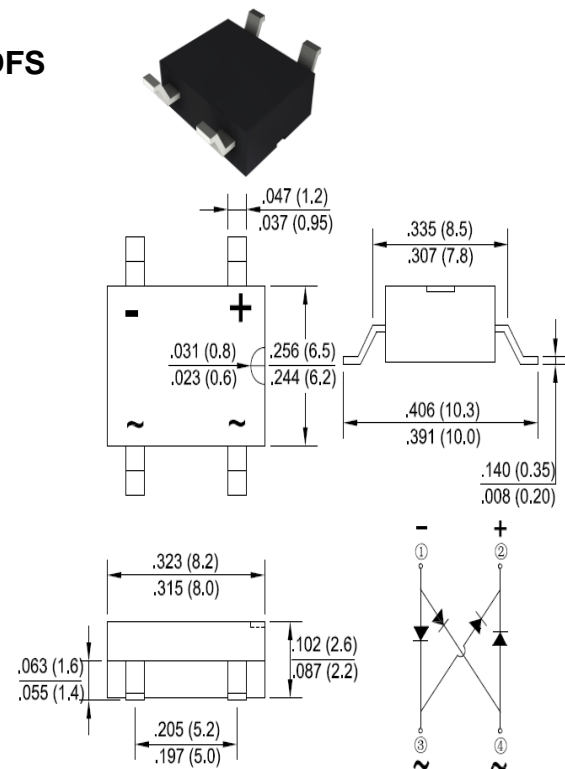
Maximum Ratings and Electrical Characteristics

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%.

DFS



Package Outline Dimensions in Inches (Millimeters)

Characteristics	Symbol	DF	DF	DF	DF	DF	DF	DF	Unit
		15005S	1501S	1502S	1504S	1506S	1508S	1510S	
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 @T _A =40 °C	I _(AV)	1.5							A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	50							A
I ² t Rating for Fusing (t<8.3mS)	I ² _t	10.4							A ² s
Peak Forward Voltage per Diode at 1.5A DC	V _F	1.1							V
Maximum DC Reverse Current at Rated @T _J =25°C	I _R	10							μA
DC Blocking Voltage per Diode @T _J =125°C		500							
Typical Junction Capacitance (Note1)	C _J	25							pF
Typical Thermal Resistance Junction to Ambient (Note2)	R _{θJA}	40							°C/W
Operating Junction Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

Notes: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient mounted on P.C.B ,with 0.5*0.5"(13*13mm) copper pads.

Rating and Characteristic Curves

Fig. 1 - Forward Current Derating Curve

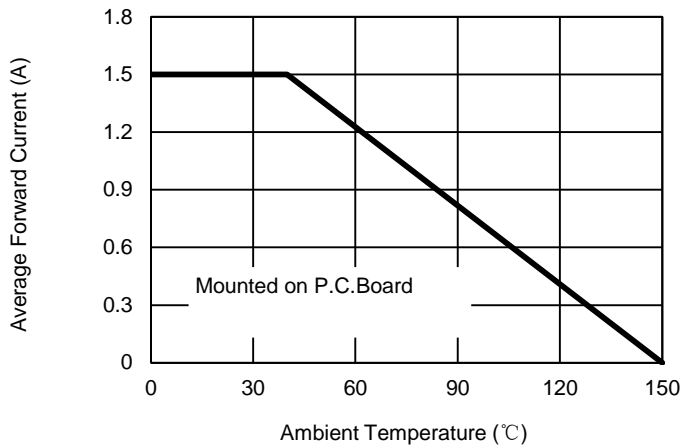


Fig. 2 - Maximum Non-Repetitive Surge Current

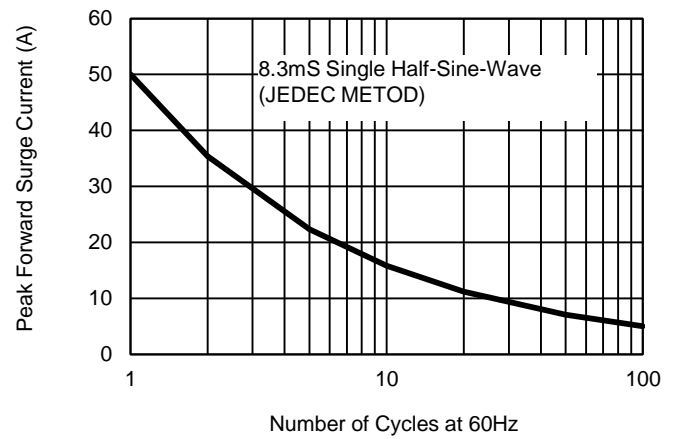


Fig. 3 - Typical Reverse Characteristics

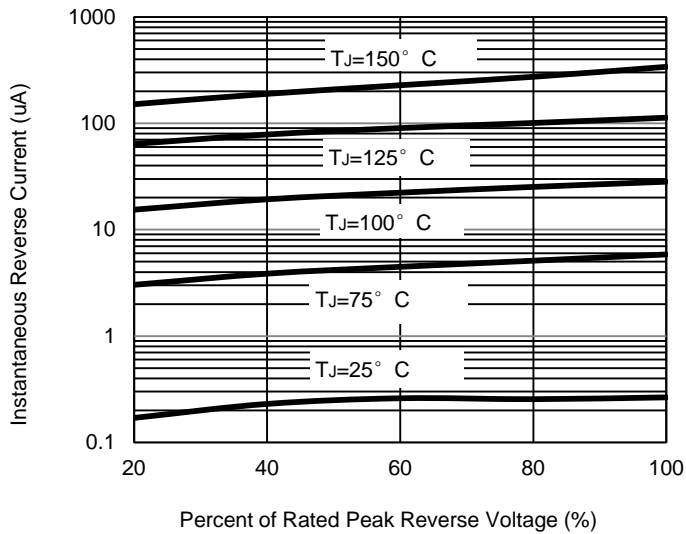


Fig. 4 - Typical Forward Characteristics

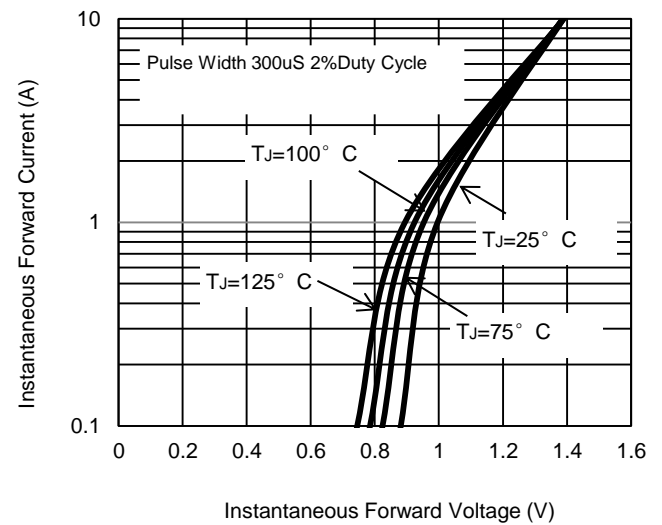


Fig. 5 - Typical Junction Capacitance

