

GSDF15005S thru GSDF1510S

Glass Passivated Bridge Rectifiers

Reverse Voltage 50V to 1000V Forward Current 1.5A

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- Ideal for printed circuit board
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU



Package: DBS

Mechanical Data

- Case: DBS molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750, method 2026
- Mounting Position: Any

Applications

Used in AC/DC bridge full wave rectification for SMPS, lighting ballaster, adapter, charger, home appliances, office equipment, and telecommunication applications.

Maximum Ratings & 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%.)

Parameters		Symbols	GSDF 15005S	GSDF 1501S	GSDF 1502S	GSDF 1504S	GSDF 1506S	GSDF 1508S	GSDF 1510S	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 Rectified Current		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
Maximum Instantaneous Forward Voltage at 1.5A DC		V _F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A =25°C	I _R	5.0							μA
	T _A =125°C		100							
Typical Junction Capacitance ¹		C _J	25							pF
Typical Thermal Resistance, Junction-Ambient ²		R _{θJA}	40							°C/W
Typical Thermal Resistance, Junction-Case		R _{θJC}	8							°C/W
Operating Junction and Storage Temperature Range		T _J , T _{STG}	-55 to +150							C

Notes:

1. Measured at 1MHz and applied reverse voltage of 4.0 Volts.

2. Thermal resistance junction to ambient mounted on P.C.B. With 0.5*0.5 inches (13*13mm) copper pads.

Typical Electrical Characteristic Curves

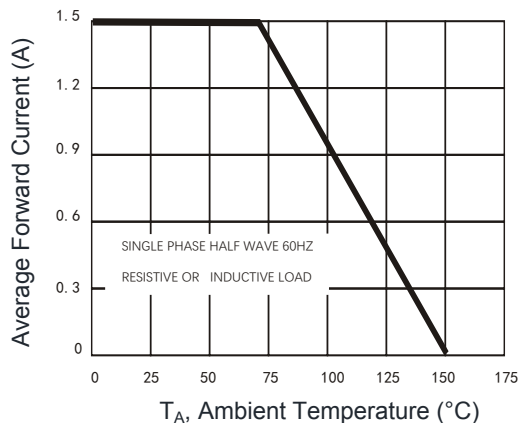


Figure 1. Typical Forward Current Derating Curve

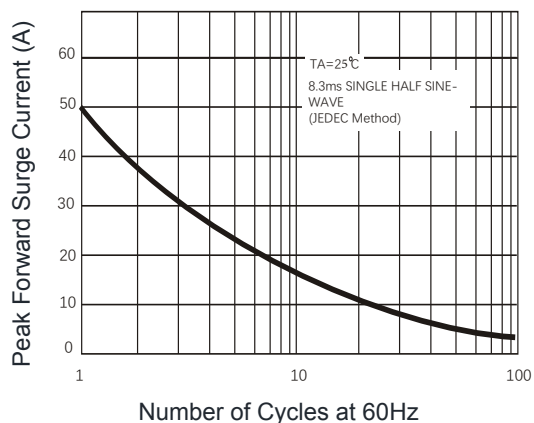


Figure 2. Maximum Non-Repetitive Forward Surge Current

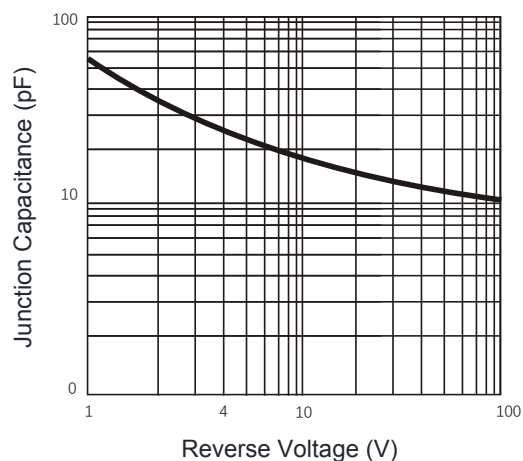


Figure 3. Typical Junction Capacitance

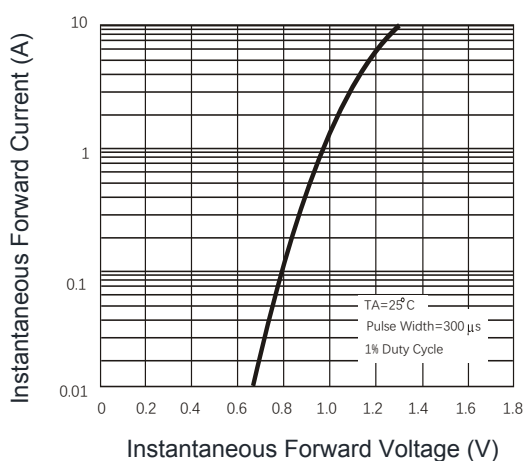


Figure 4. Typical Forward Characteristics

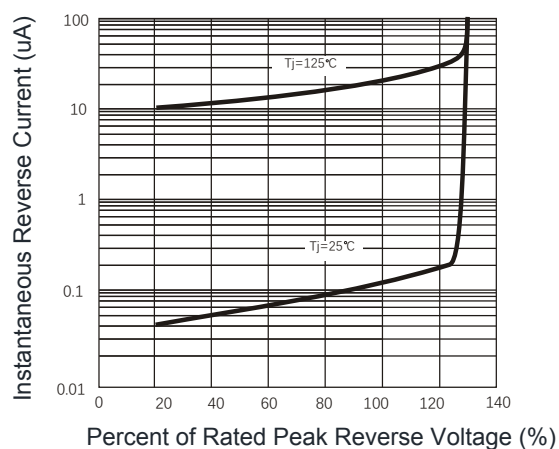
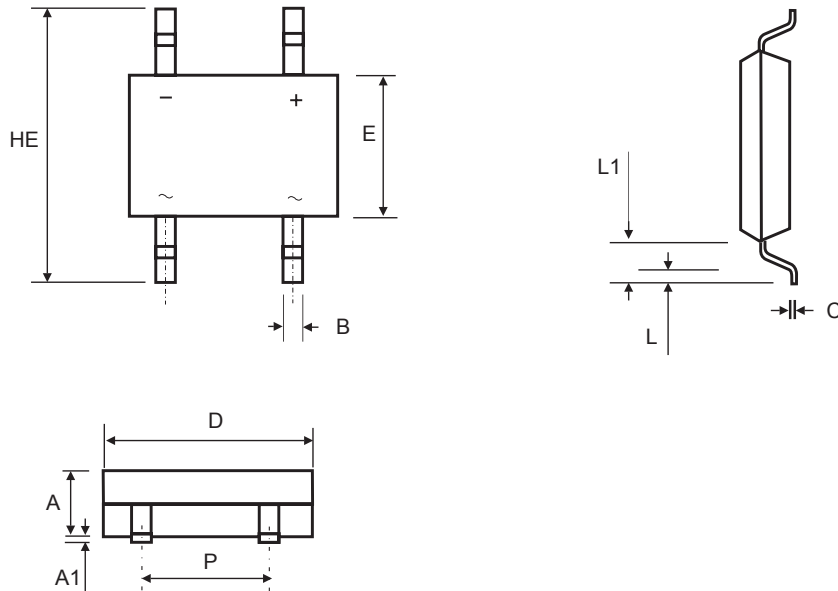


Figure 5. Typical Reverse Characteristics

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Package Outline Dimensions (DBS)



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	2.10	3.40	0.083	0.134
A1	0.08	0.33	0.003	0.013
B	0.90	1.20	0.035	0.047
C	0.15	0.33	0.006	0.013
D	7.95	8.80	0.313	0.346
E	6.10	6.50	0.240	0.256
HE	9.30	10.30	0.366	0.406
L	1.02	1.53	0.040	0.060
L1	1.80	2.10	0.071	0.083
P	5.00	5.20	0.197	0.205

Order Information

Device	Package	Marking	Carrier	Quantity
GSDF15005S	DBS	DF15005S	Tape & Reel	1,500 pcs / Reel
GSDF1501S	DBS	DF1501S	Tape & Reel	1,500 pcs / Reel
GSDF1502S	DBS	DF1502S	Tape & Reel	1,500 pcs / Reel
GSDF1504S	DBS	DF1504S	Tape & Reel	1,500 pcs / Reel
GSDF1506S	DBS	DF1506S	Tape & Reel	1,500 pcs / Reel
GSDF1508S	DBS	DF1508S	Tape & Reel	1,500 pcs / Reel
GSDF1510S	DBS	DF1510S	Tape & Reel	1,500 pcs / Reel

For more information, please contact us at: inquiry@goodarksemi.com