

## Surface Mount Glass Passivated Bridge Rectifiers

 Lead(Pb)-Free

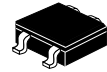
### Features:

- \* For Surface Mount Application
- \* Glass Passivated Chip
- \* Low Reverse Leakage Current
- \* Low Forward Voltage Drop And High Current Capability
- \* Plastic Material Has UL Flammability Classification 94V-0

### Mechanical Data:

- \* Case : Molded Plastic
- \* Polarity : As marked on Body
- \* Weight : 0.02 Ounce, 0.38 grams

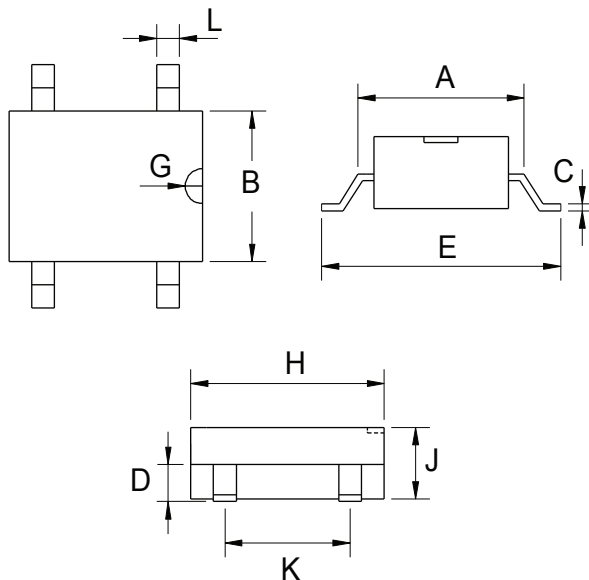
**REVERSE VOLTAGE  
50 TO 1000 VOLTS  
FORWARD CURRENT  
1.5 AMPERES**



**DF-S**

## DF-S Outline Dimensions

Unit:mm



DF-S		
Dim	Min	Max
A	7.8	8.5
B	6.2	6.5
C	0.2	0.35
D	1.4	1.6
E	10.0	10.3
G	0.6	0.8
H	8.0	8.2
J	2.2	2.6
K	5.0	5.2
L	0.95	1.2

## Maximum Ratings and Electrical Characteristics

Rating 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	DF15005S	DF1501S	DF1502S	DF1504S	DF1506S	DF1508S	DF1510S	Unit
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 @TC = 40°C	$I_{F(AV)}$	1.5							A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super imposed on Rated Load (JEDEC Method)	$I_{FSM}$	50							A
Maximum Instantaneous At 1.0 ADC	$V_F$	1.1							V
Maximum DC Reverse Current @Tj = 25°C At Rated DC Blocking Voltage @Tj = 125°C	$I_R$	10 500							μA
Typical Junction Capacitance (Note1)	$C_J$	25							pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	40							°C/W
Operating Temperature Range	$T_J$	-55 to +150							°C
Storage Temperature Range	$T_{STG}$	-55 to +150							°C

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

2. Thermal Resistance from junction to ambient mounted on P.C.B. with 13 \* 13 mm Copper pads.

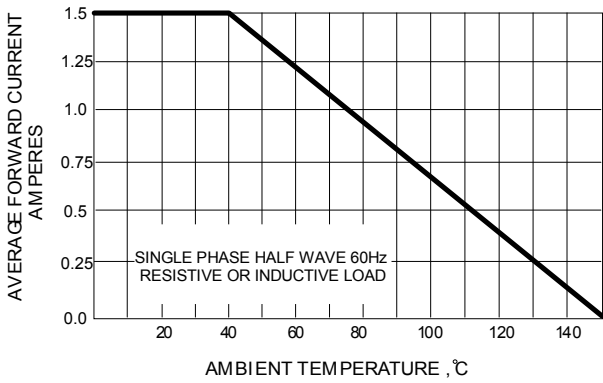


FIG.1 - FORWARD CURRENT DERATING CURVE

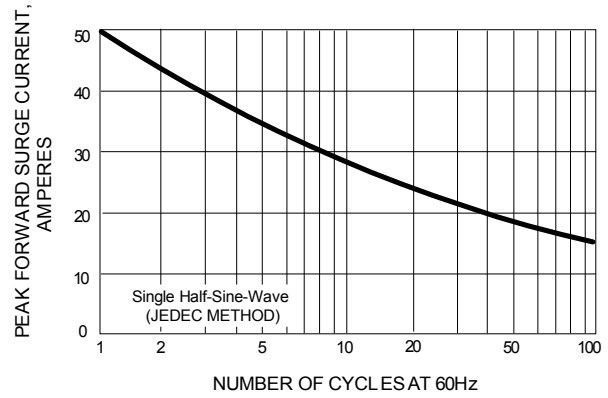


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

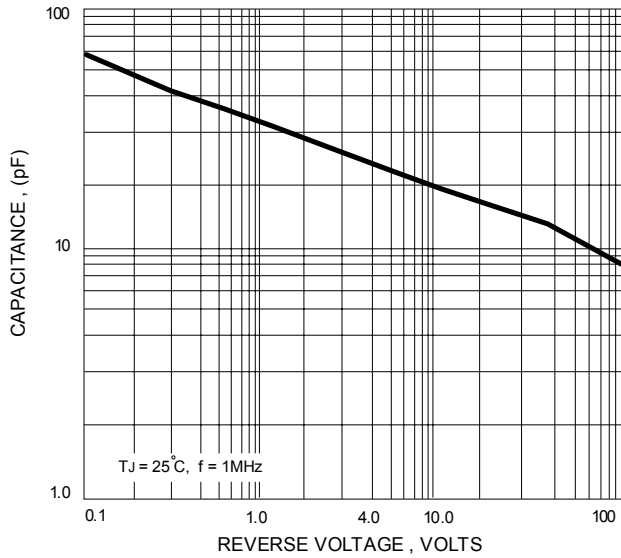


FIG.3 - TYPICAL JUNCTION CAPACITANCE

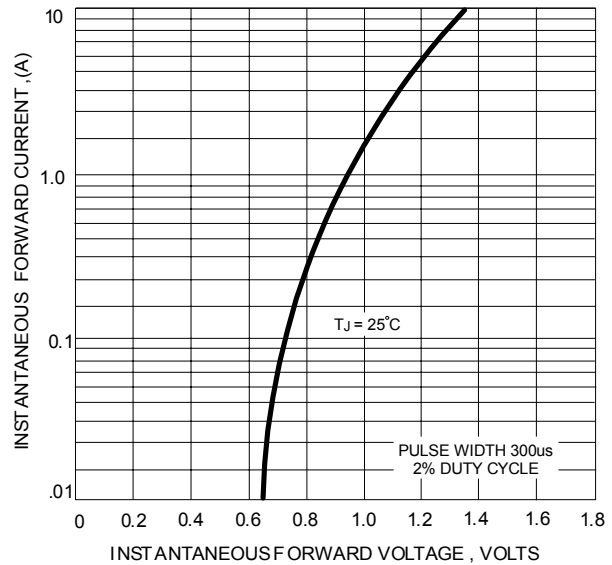


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

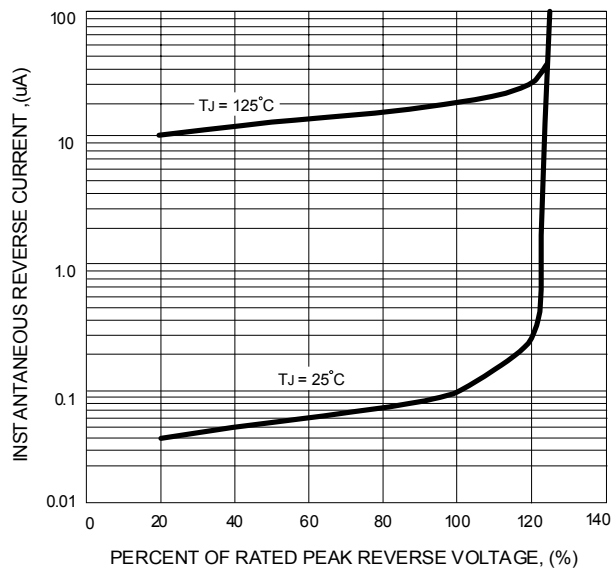


FIG.5 - TYPICAL REVERSE CHARACTERISTICS