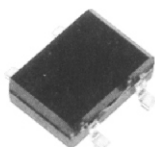


# DF15005S thru DF1510S

**SURFACE MOUNT  
GLASS PASSVATED  
BRIDGE RECTIFIERS  
SINGLE-PHASE GLASS BRIDGE**



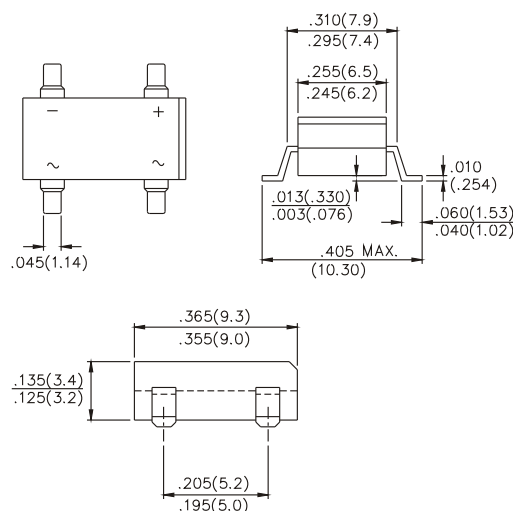
## FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Lead in plated copper
- The plastic material has UL flammability classification 94V-0

## MECHANICAL DATA

- Polarity: as marked on body
- Weight: 0.02 ounces, 0.38 grams
- Mounting position: Any

REVERSE VOLTAGE -50 to 1000 Volts  
FORWARD CURRENT -1.5 Amperes



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

		DF 15005S	DF 1501S	DF 1502S	DF 1504S	DF 1506S	DF 1508S	DF 1510S	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input 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 @ $T_A=40^\circ\text{C}$	$V_{(AV)}$	1.5							A
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50							A
Maximum DC Forward Voltage at ADC	$V_F$	1.1							V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at rated DC Blocking Voltage @ $T_J=125^\circ\text{C}$	$I_R$	10 500							$\mu\text{A}$ $\mu\text{A}$
$I^2 t$ Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2 t$	10.4							$\text{A}^2\text{S}$
Typical Junction Capacitance per element (Note 1)	$C_J$	25							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	40							$^\circ\text{C/W}$
Operating Temperature Range	$T_J$	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

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

2. Thermal Resistance from Junction to ambient mounted on P.C.B.

with 0.5 x 0.5" (13 x 13mm) copper pads.

# DF15005S thru DF1510S

**SURFACE MOUNT  
GLASS PASSVATED  
BRIDGE RECTIFIERS  
SINGLE-PHASE GLASS BRIDGE**



## RATING AND CHARACTERISTICS CURVES DF15005S THRU DF1510S

FIG. 1 - FORWAED CURRENT DERATING CURVE

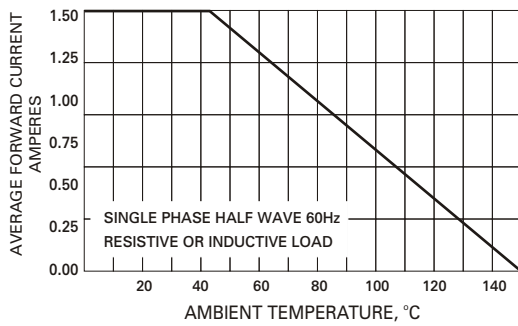


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

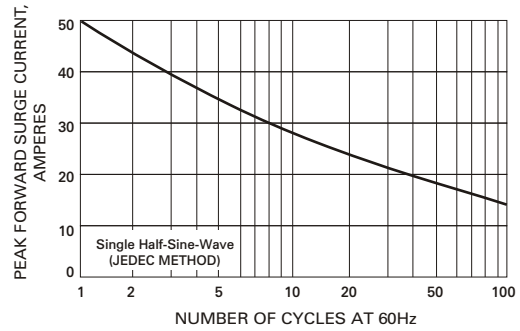


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

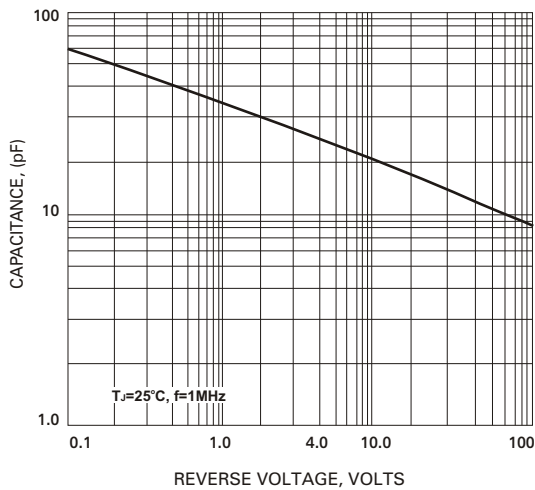


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

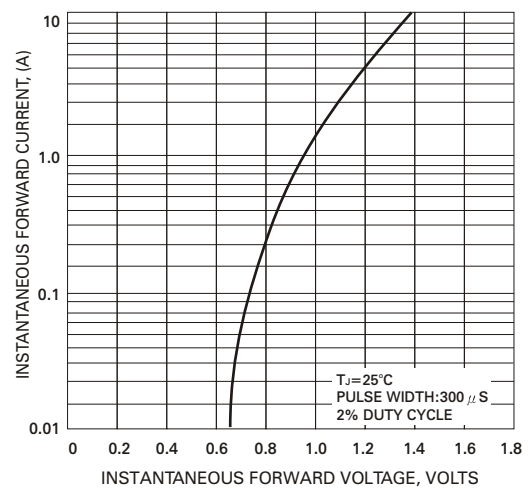


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

