



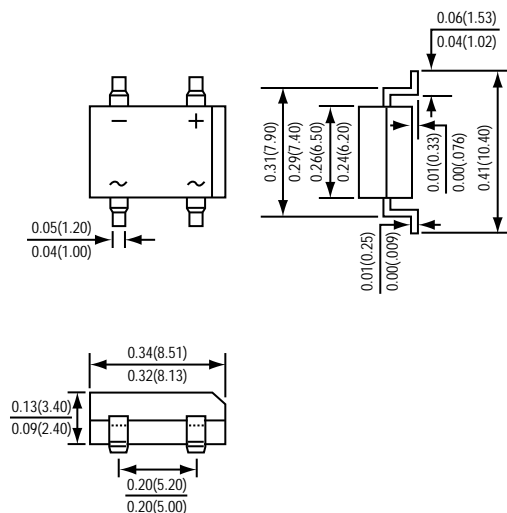
# DF005S THRU DF10S

## SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.0 Ampere

**DF-S**



\*Dimensions in inches and (millimeters)

### FEATURES

- \* Glass Passivated Die Construction
- \* Diffused Junction
- \* Low Forward Voltage Drop, High Current Capability
- \* Surge Overload Rating to 50A Peak
- \* Designed for Surface Mount Application
- \* Plastic Material-UL Recognition Flammability Classification 94V-0
- \* This Series is UL Listed Under Recognized Component Index, File Number E95060

### MECHANICAL DATA

**Case :** Molded Plastic  
**Terminals :** Plated Leads, solderable per MIL-STD-750, Method 2026  
**Polarity :** As marked on Case  
**Mounting Position:** Any  
**Weight :** 0.38 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.	SYMBOLS	DF005S	DF01S	DF02S	DF04S	DF06S	DF08S	DF10S	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current @ TA=40°C	I (AV)	1.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	50							Amps
Maximum instantaneous forward voltage @ IF=1.0 A	VF	1.1							Volts
Maximum DC reverse current @TC=25°C at rated DC blocking voltage @TC=125°C	IR	10 500							uA
I <sup>2</sup> t rating for fusing ( t < 8.3ms )	I <sup>2</sup> t	10.4							A <sup>2</sup> s
Typical junction capacitance per element (NOTE 1)	CJ	25							pF
Typical thermal resistance, junction to ambient (NOTE 2)	R θJA	110							K / W
Operating junction and storage temperature range	TJ,TSTG	-65 to +150							°C

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

(2) Thermal resistance, junction to ambient, measured on PC board with 5.0mm<sup>2</sup> (0.03mm thick) land areas.

# RATINGS AND CHARACTERISTIC CURVES DF005S THRU DF10S

FIG.1 - FORWARD CURRENT DERATING CURVE

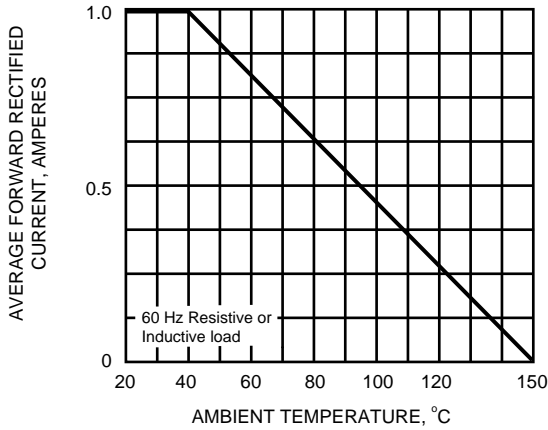


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

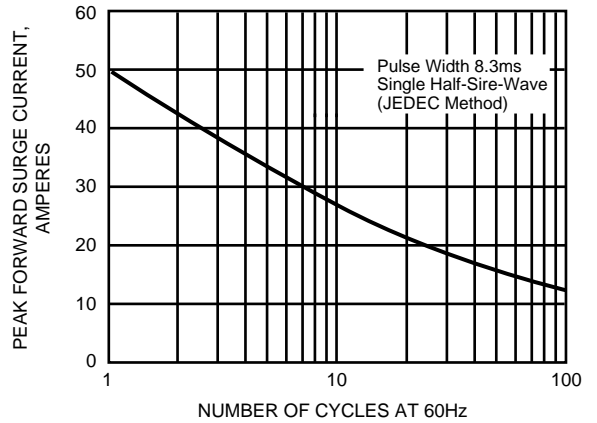


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

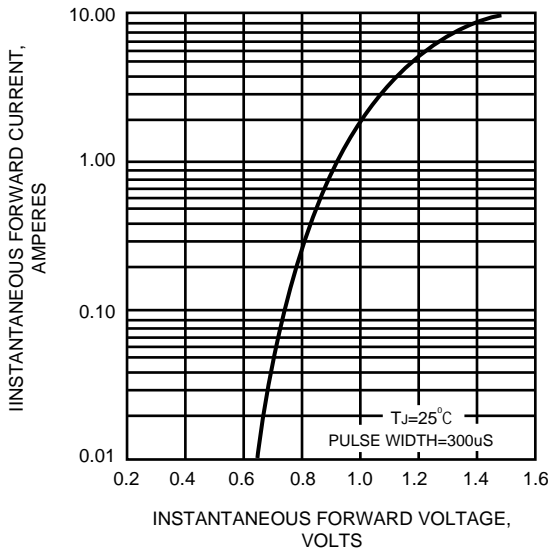


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

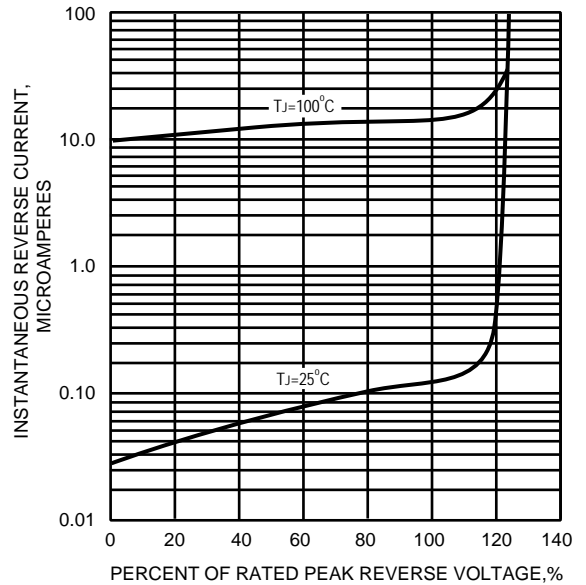


FIG.5 - TYPICAL JUNCTION CAPACITANCE

