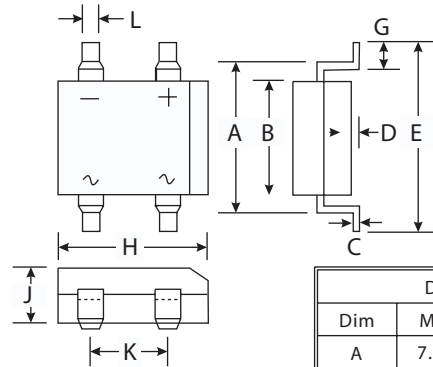


### Features

- 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 Flammability Classification 94V-0



DF-S		
Dim	Min	Max
A	7.40	7.90
B	6.20	6.50
C	0.22	0.30
D	0.076	0.33
E	—	10.40
G	1.02	1.53
H	8.13	8.51
J	2.40	2.60
K	5.00	5.20
L	1.00	1.20
All Dimensions in mm		

### Mechanical Data

- Case : Molded Plastic
- Terminals : Solder Plated Leads,  
Solderable per MIL-STD-202, Method 208
- Polarity : As Marked on Case
- Approx Weight : 0.38 grams
- Mounting Position : Any
- Marking : Type Number

### 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 by 20%)

	Symbols	DF 005S	DF 01S	DF 02S	DF 04S	DF 06S	DF 08S	DF 10S	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RMM}$ $V_{RWM}$ $V_R$	50	100	200	400	600	800	1000	Volts
RMS Reverse voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Average Rectified Output Current @ $T_A=40^\circ\text{C}$	$I_o$	1.0							Amp
Non-Repetitive Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	50							Amp
Forward Voltage (per element) @ $I_F=1.0\text{ A}$	$V_{FM}$	1.1							Volts
Peak Reverse Current at Rated DC Blocking Voltage (per element)	@ $T_A=25^\circ\text{C}$	10							$\mu\text{A}$
	@ $T_A=100^\circ\text{C}$	500							
$I^2t$ Rating for Fusing ( $t<8.3\text{ms}$ )	$I^2t$	10.4							$\text{A}^2\text{s}$
Typical Junction Capacitance per element (Note 1)	$C_j$	25							pF
Typical Thermal Resistance, Junction to Ambient (Note 2)	$R\theta_{JA}$	40							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_j$ $T_{STG}$	-65 to +150							$^\circ\text{C}$

#### Notes:

- (1) Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.
- (2) Thermal Resistance, junction to ambient, measured on PC board with 5.0<sup>2</sup>mm (0.03mm thick) land areas.

## RATING AND CHARACTERISTIC CURVES DF005S THRU DF10S

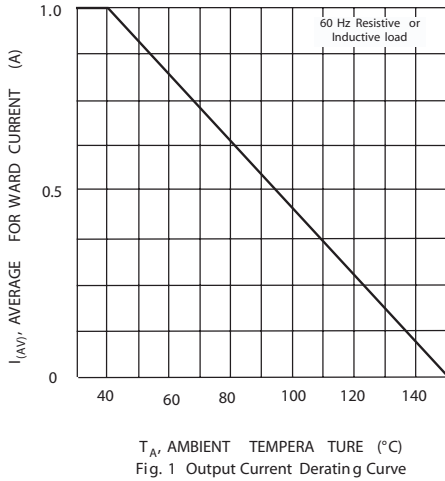


Fig. 1 Output Current Derating Curve

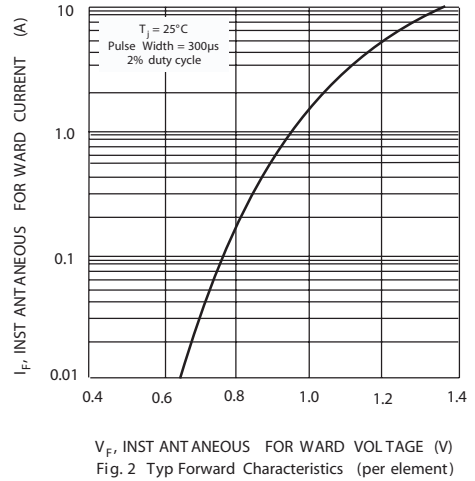


Fig. 2 Typ Forward Characteristics (per element)

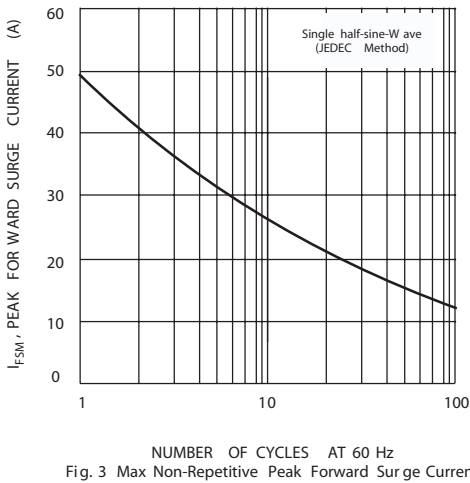


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

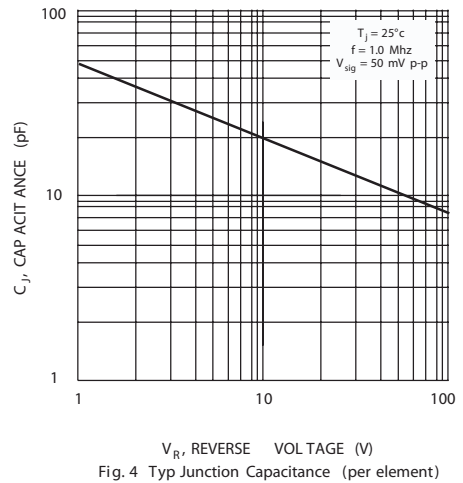


Fig. 4 Typ Junction Capacitance (per element)

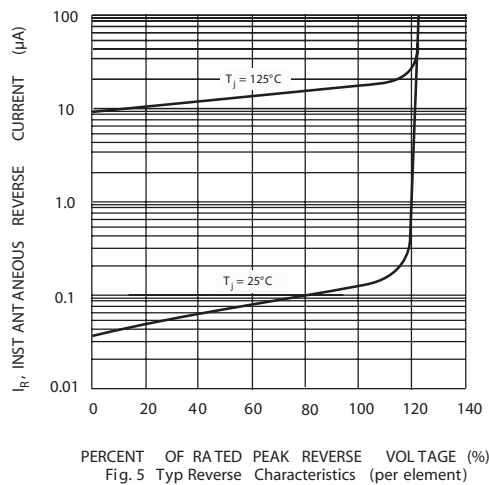


Fig. 5 Typ Reverse Characteristics (per element)