Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	DF 005S	DF 01S	DF 02S	DF 04S	DF 06S	DF 08S	DF 10S	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RMM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Forward Rectified Current @ T_A = +40°C	I_O	1.0							A
Non-Repetitive Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	50							A

Thermal Characteristics

Characteristic	Symbol	DF 005S	DF 01S	DF 02S	DF 04S	DF 06S	DF 08S	DF 10S	Unit
Typical Thermal Resistance, Junction to Ambient (Note 6)	$R_{\theta JA}$	40							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150							°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	DF 005S	DF 01S	DF 02S	DF 04S	DF 06S	DF 08S	DF 10S	Unit
Forward Voltage (Per Element) @ I_F = 1.0A	V_{FM}	1.1							V
Peak Reverse Current at Rated DC Blocking Voltage (Per Element) @ T_A = +25°C @ T_A = +125°C	I_{RM}	10 500							µA
I^2t Rating for Fusing (t<8.3ms)	I^2t	10.4							A^2s
Typical Total Capacitance (Per Element) (Note 5)	C_T	25							pF

Notes: 5. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
6. Thermal resistance, junction to ambient, measured on PC board with 5.0mm^2 (0.03mm thick) land areas.

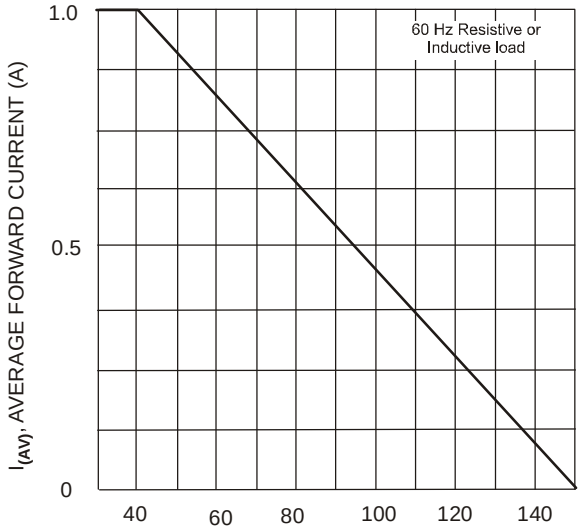


Fig. 1 Output Current Derating Curve

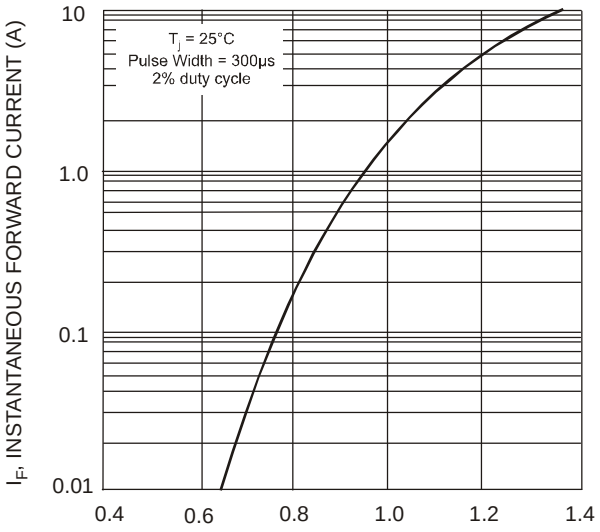


Fig. 2 Typical Forward Characteristics (per element)

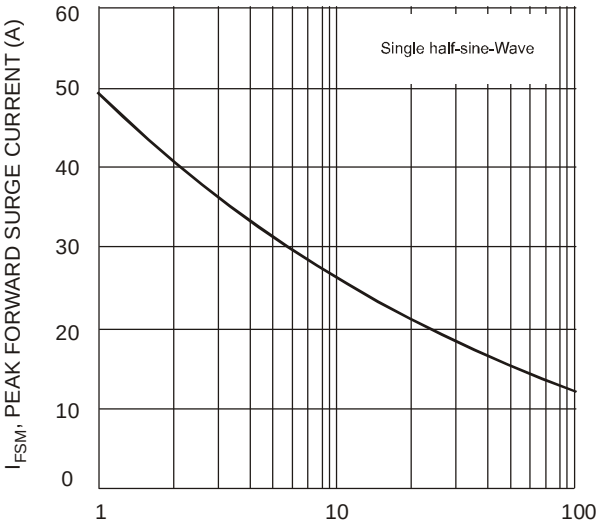


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

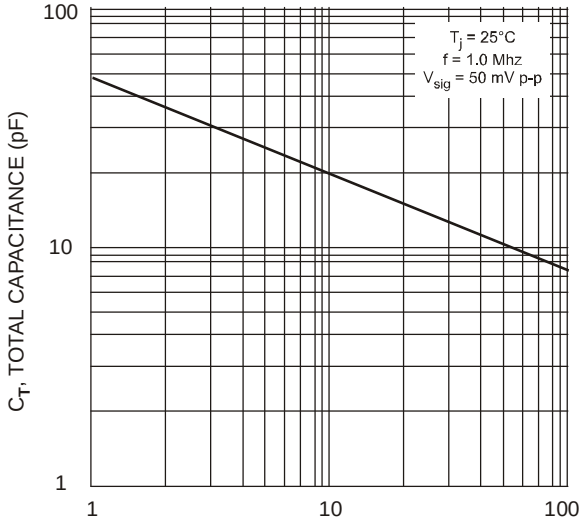


Fig. 4 Typical Total Capacitance (per element)

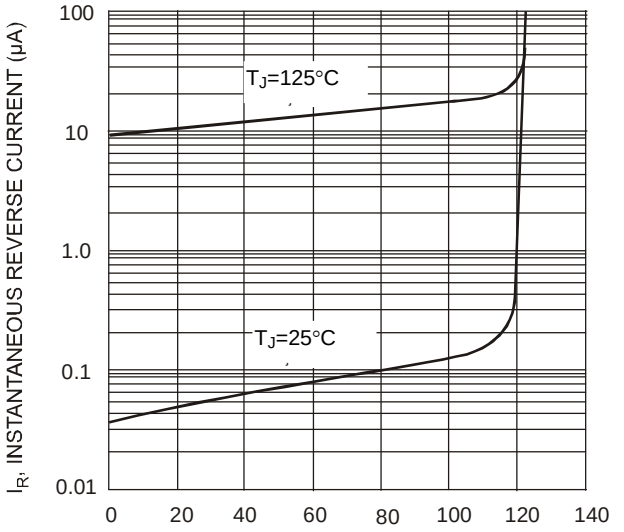
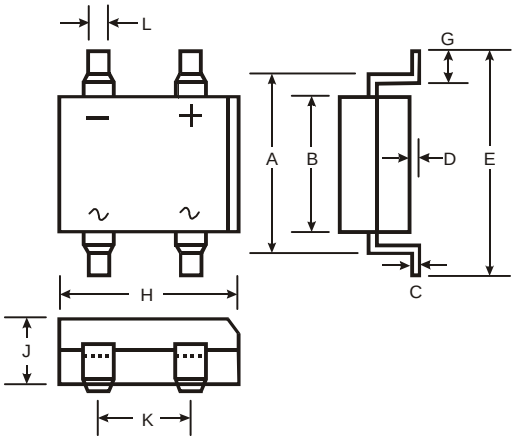


Fig. 5 Typical Reverse Characteristics (per element)

Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

DF-S

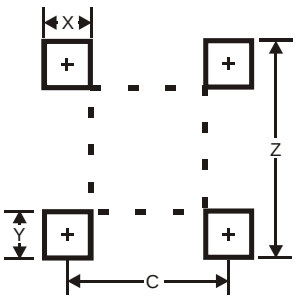


DF-S		
Dim	**Min**	**Max**
A	7.40	7.90
B	6.20	6.50
C	0.22	0.30
D	0.076	0.33
E	—	10.40
G	1.02	1.53
H	8.13	8.51
J	2.40	2.60
K	5.00	5.20
L	1.00	1.20
All Dimensions in mm		

Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

DF-S



Dimensions	Value (in mm)
Z	10.26
X	1.2
Y	1.52
C	5.2

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