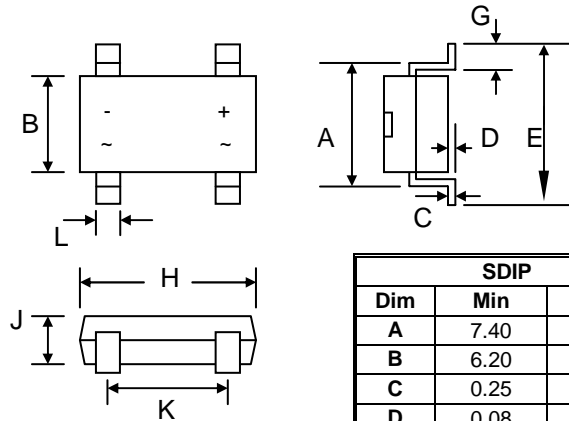


### Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-O



### Mechanical Data

- Case: S D I P , Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Weight: 1.0 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version**

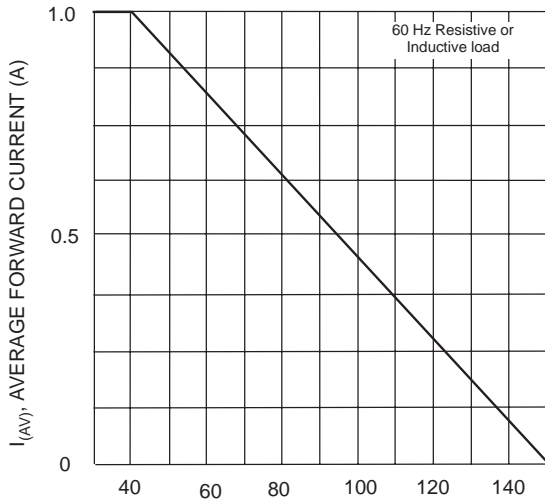
SDIP		
Dim	Min	Max
A	7.40	7.90
B	6.20	6.50
C	0.25	—
D	0.08	0.33
E	9.30	10.30
G	1.02	1.53
H	8.00	8.51
J	2.15	3.40
K	5.00	5.20
L	0.90	1.20
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

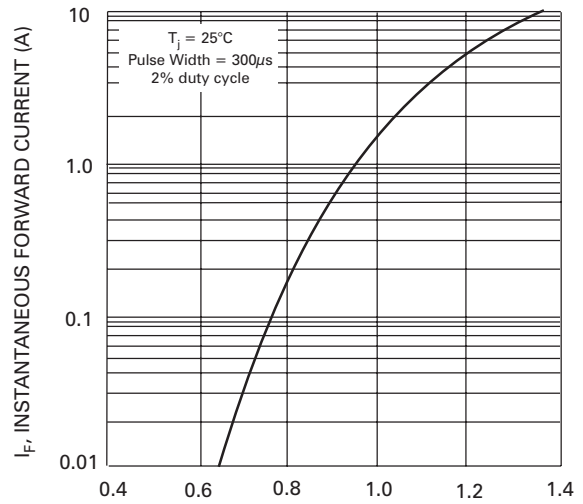
Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	DF005S	DF01S	DF02S	DF04S	DF06S	DF08S	DF10S	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$								
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	V
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @ $T_A = 40^\circ\text{C}$	$I_O$	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50							A
Forward Voltage per element @ $I_F = 1.0\text{A}$	$V_{FM}$	1.1							V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$	$I_{RM}$	5.0 500							$\mu\text{A}$
Typical Junction Capacitance per element (Note 1)	$C_j$	25							pF
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	40 15							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150							$^\circ\text{C}$

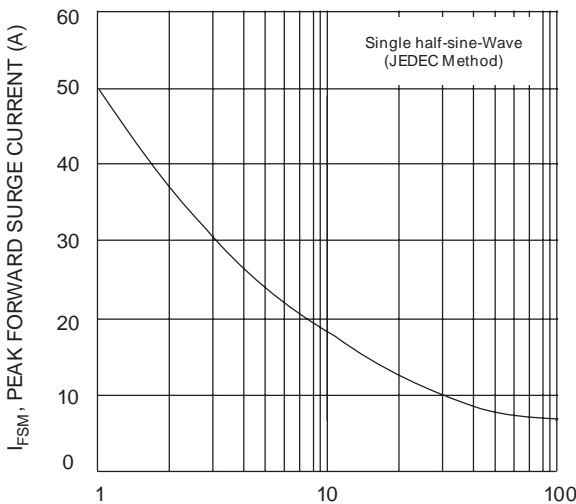
Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
2. Mounted on PC board with 13mm<sup>2</sup> copper pad.



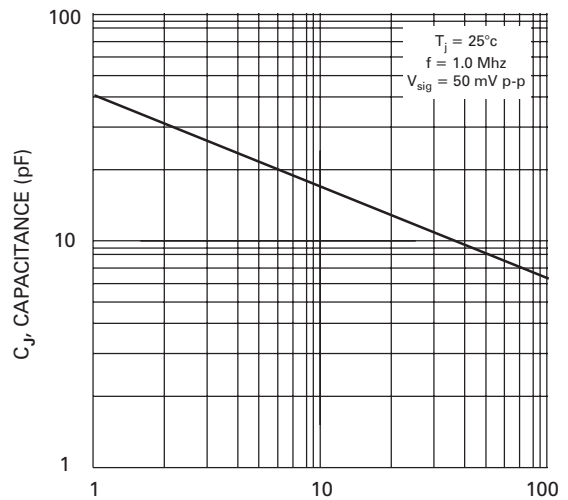
$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Output Current Derating Curve



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typ Forward Characteristics (per element)



NUMBER OF CYCLES AT 60 Hz  
Fig. 3 Max Non-Repetitive Peak Forward Surge Current



$V_R$ , REVERSE VOLTAGE (V)  
Fig. 4 Typ Junction Capacitance (per element)

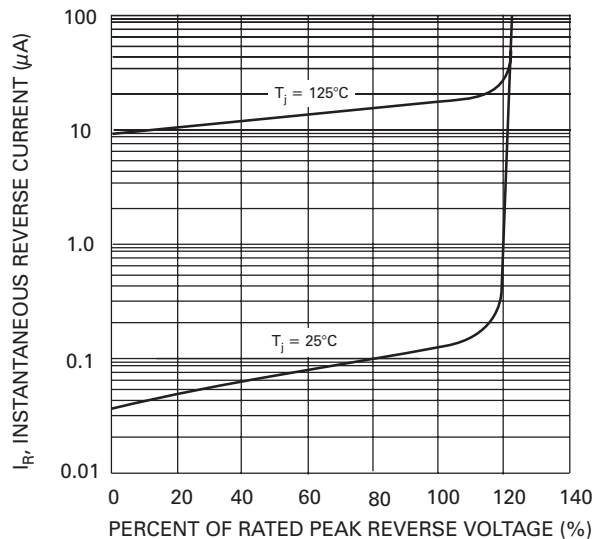


Fig. 5 Typ Reverse Characteristics (per element)