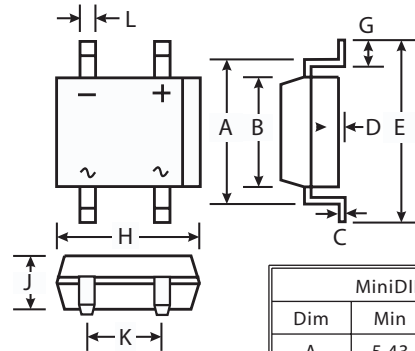


### Features

- Glass Passivated Die Construction
- Diffused Junction
- Low Forward Voltage Drop, High Current Capability
- Surge Overload Rating to 30A Peak
- Designed for Printed Circuit Board Applications
- Plastic Material - UL Flammability Classification 94V-0



### Mechanical Data

- Case : Molded Plastic
- Terminals : Solder Plated Leads,  
Solderable per MIL-STD-202, Method 2026
- Polarity : As Marked on Case
- Approx. Weight : 0.125 grams
- Mounting Position : Any
- Marking : Type Number

MiniDIP		
Dim	Min	Max
A	5.43	5.75
B	3.60	4.00
C	0.15	0.35
D	0.05	0.20
E	—	7.00
G	0.70	1.10
H	4.50	4.90
J	2.80	2.90
K	2.50	2.70
L	0.50	0.80

All Dimensions in mm

### 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	S40S	S80S	S125S	S250S	S380S	S500S	Units
Peak Repetitive Reverse voltage Working Peak Reverse voltage DC Blocking voltage	$V_{RMM}$ $V_{RWM}$ $V_R$	100	200	400	600	800	1000	Volts
RMS Reverse voltage	$V_{RMS}$	70	140	280	420	560	700	Volts
Average Rectified Output Current @ $T_A=40^\circ\text{C}$	$I_o$	0.8						Amp
Non-Repetitive Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30						Amp
Forward voltage (per element) @ $I_F=0.4\text{ A}$	$V_{FM}$	1.0						Volts
Peak Reverse Current at Rated DC Blocking voltage (per element)	@ $T_A=25^\circ\text{C}$	10						$\mu\text{ A}$
	@ $T_A=125^\circ\text{C}$	500						
Typical Junction Capacitance per element (Note 1)	$C_j$	10						pF
Typical Thermal Resistance, Junction to Ambient (Note 2)	$R_{\theta\text{ JA}}$	75						$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_j$ $T_{STG}$	-55 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 S40S THRU S500S

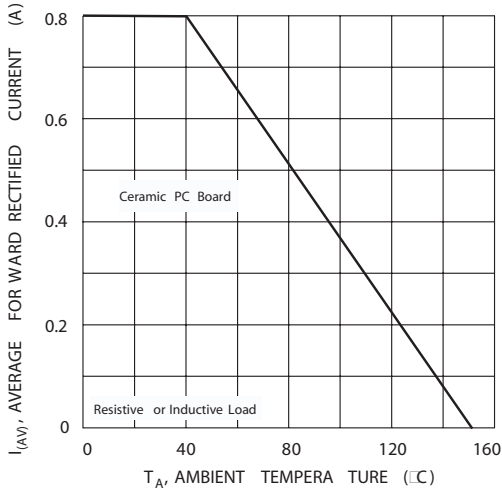


Fig. 1 Output Current Derating Curve

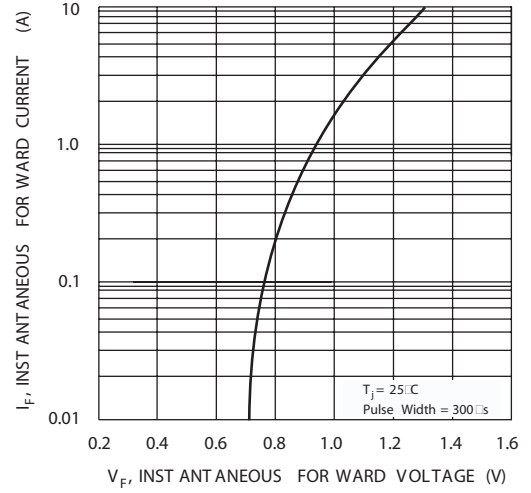


Fig. 2 Typical Forward Characteristics (per leg)

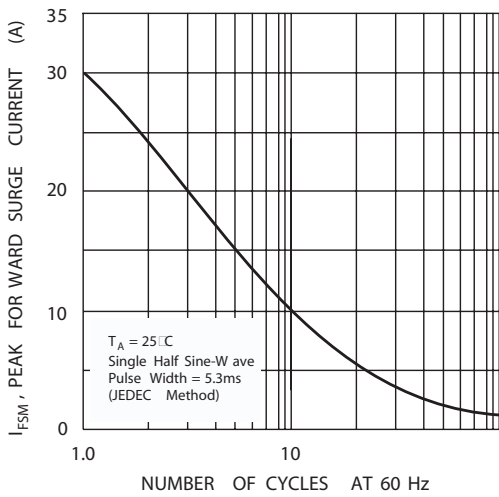


Fig. 3 Maximum Peak Forward Surge Current (per leg)

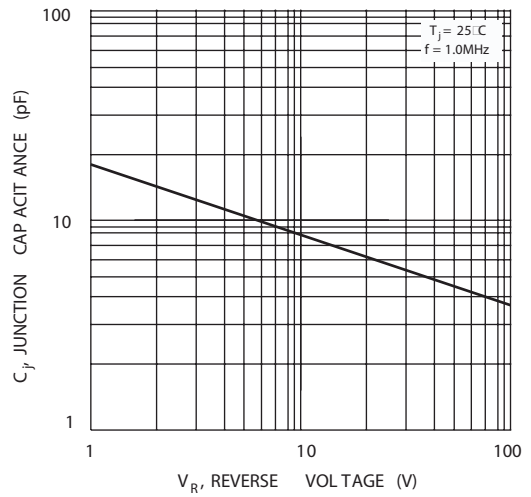


Fig. 4 Typical Junction Capacitance

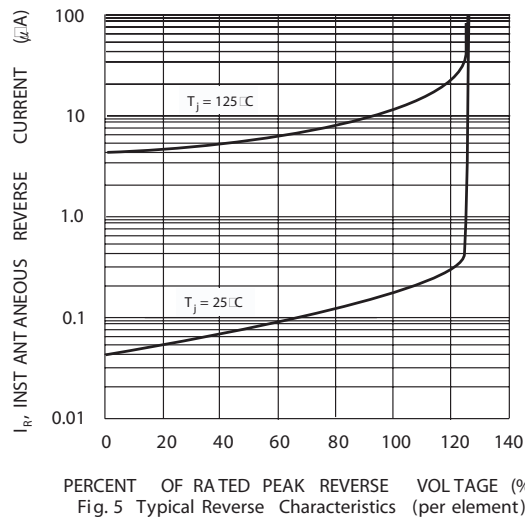


Fig. 5 Typical Reverse Characteristics (per element)