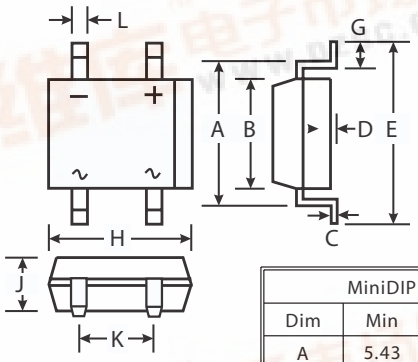
DEC

S40S THRU S500S

CURRENT 0.8 Amperes
VOLTAGE 100 to 1000 Volts

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



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		

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

Maximum Ratings And Electrical Characteristics

(Ratings at 25℃ 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℃	Io	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 A	V_{FM}	1.0						Volts
Peak Reverse Current at Rated DC Blocking voltage (per element) @ T_A=25℃	I_{RM}	10						μA
@ T_A=125℃		500						
Typical Junction Capacitance per element (Note 1)	C_j	10						pF
Typical Thermal Resistance, Junction to Ambient (Note 2)	$R\theta_{JA}$	75						℃/W
Operating and Storage Temperature Range	T_j T_{STG}	-55 to +150						℃

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 5.0²mm (0.03mm thick) land areas.

RATING AND CHARACTERISTIC CURVES S40S THRU S500S

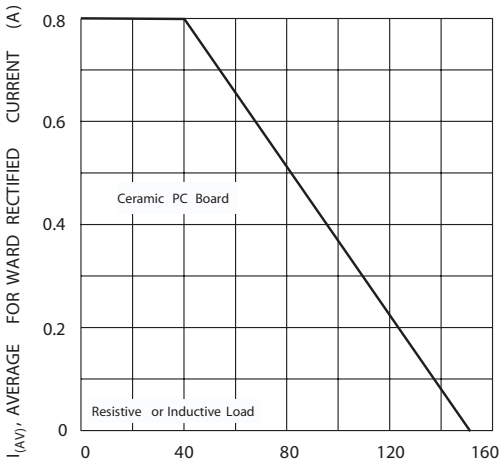


Fig. 1 Output Current Derating Curve

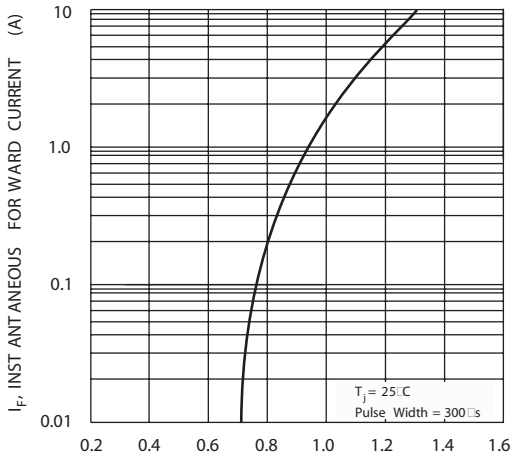


Fig. 2 Typical Forward Characteristics (per leg)

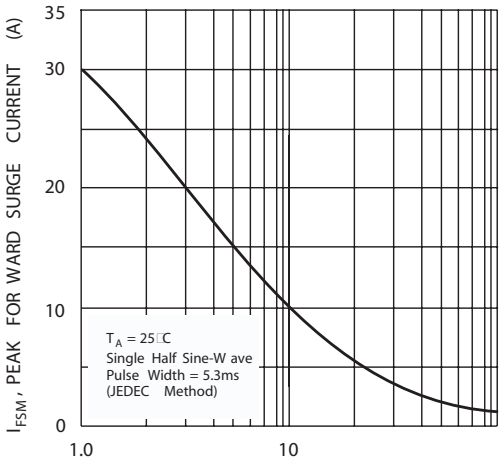


Fig. 3 Maximum Peak Forward Surge Current (per leg)

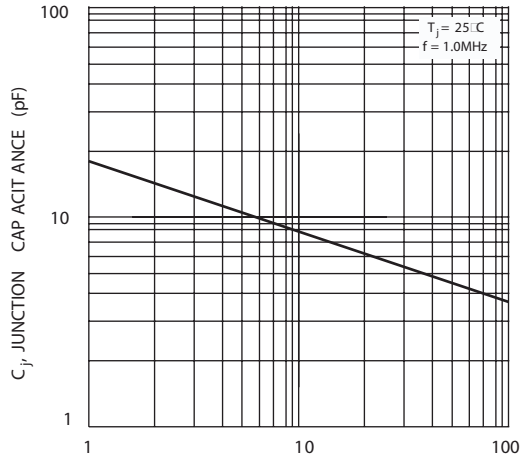


Fig. 4 Typical Junction Capacitance

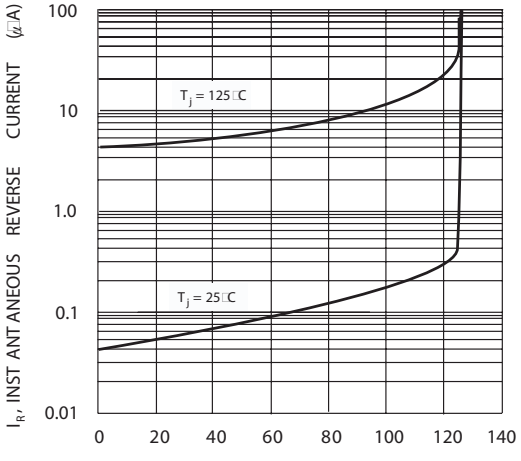


Fig. 5 Typical Reverse Characteristics (per element)