



Square bridge

Type	Alternating Input voltage V_{VRMS} V	Repetitive peak reverse voltage V_{RRM} V	Max. admissible load capacitor C_L μF	Min. required protective resistor R_t Ω
S 40	50	80	5000	0,8
S 80	110	160	2500	1,6
S 125	170	250	1500	2,5
S 250	420	600	800	5
S 380	560	800	600	8,5
S 500	700	1000	400	10

Surface Mount Si-Bridge Rectifiers

S 40 ... S 500

Forward Current: 0,8 A

Reverse Voltage: 80 to 1000 V

Publish Data

Features

- max. solder temperature 260°C, max. 5s
- UL recognized, file no. E63532

Mechanical Data

- Plastic case 4,7 * 3,9 * 2,4 [mm]
- Weight approx. 0,1 g
- Terminals: plated terminals solderable per IEC68-2-20
- Mounting position: any
- Standard packaging taped and reeled

Absolute Maximum Ratings		$T_c = 25^\circ C$ unless otherwise specified	
Symbol	Conditions	Values	Units
I^2t	Rating for fusing, $t < 10$ ms	8	A ² s
I_{FRM}	Repetitive peak forward current > 15 Hz	10	A
I_{FSM}	Peak forward surge current, 50 Hz half sine-wave	40	A
t_{rr}	Reverse recovery time ($I_F = A$)	/	ns
I_{FAV}	Max. averaged fwd. current, R-load, $T_A = 50^\circ C$ ¹⁾	0,8	A
I_{FAV}	Max. averaged fwd. current, C-load, $T_A = 50^\circ C$ ¹⁾	0,6	A
I_{FAV}	Max. current with cooling fin, R-load, $T_c = ^\circ C$ ²⁾	/	A
I_{FAV}	Max. current with cooling fin, C-load, $T_c = ^\circ C$ ²⁾	/	A
R_{thA}	Thermal resistance junction to ambient ¹⁾	60	K/W
R_{thC}	Thermal resistance junction to case ¹⁾		K/W
T_j	Operating junction temperature	- 50 ... + 150	°C
T_s	Storage temperature	- 50 ... + 150	°C

Characteristics		$T_c = 25^\circ C$ unless otherwise specified	
Symbol	Conditions	Values	Units
V_F	Maximum forward voltage, $T_j = 25^\circ C$, $I_F = 0,8$ A	1,2	V
I_R	Maximum leakage current, $T_j = 25^\circ C$, $V_R = V_{RRM}$	10	μA
C_j	Typical junction capacitance per leg at V, MHz		pF



