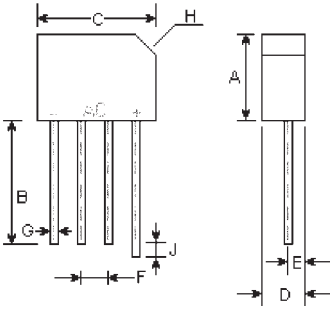
RS401L THRU RS407L

SINGLE-PHASE SILICON BRIDGE
Reverse Voltage - 50 to 1000 Volts
Forward Current - 4.0 Amperes

Features

- Ideal for printed circuit board
- Surge overload rating - 150 amperes peak
- Mounting Position: Any
- Lead: Silver-plated copper
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0

RS-4



DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.605	0.825	15.367	16.383	
B	0.750	-	19	-	
C	0.730	0.770	18.542	19.558	
D	0.235	0.265	5.97	6.73	
E	0.070 Typ.		1.778 Typ.		
F	0.190	0.210	4.83	5.33	
G	0.048	0.052	1.22	1.32	ϕ
H	0.156x45°				
J	0.200 Typ.		5.08 Typ.		

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 current by 20%.

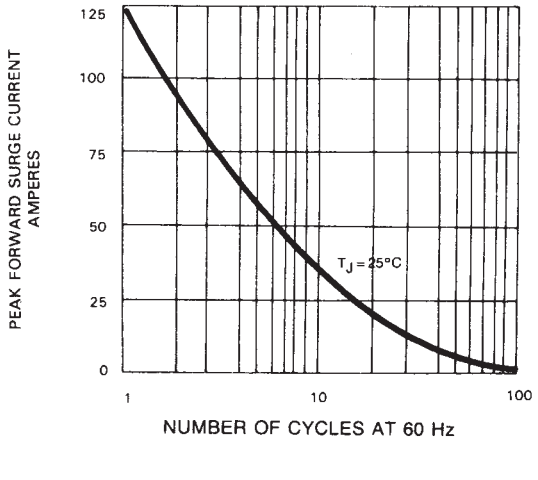
	Symbols	RS 401L	RS 402L	RS 403L	RS 404L	RS 405L	RS 406L	RS 407L	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS bridge input voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward output current at T_A=50℃ (Note 1)	$I_{(AV)}$	4.0							Amps
Peak forward surge current, 8.3mS single half sine-wave superimposed on rated load	I_{FSM}	150.0							Amps
Maximum forward Voltage drop per bridge element at 3.0A peak	V_F	1.0							Volt
Maximum DC reverse current at rate DC blocking voltage	I_R	10.0							μ A
Maximum DC reverse current at rated DC blocking voltage and T_A=150℃	I_R	1.0							mA
Operating and storage temperature range	T_J, T_{STG}	-55 to +150							℃

Note:

(1) Mounting conditions, 0.5" lead length maximum

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 — MAXIMUM FORWARD SURGE CURRENT



NUMBER OF CYCLES AT 60 Hz

FIG. 2: DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

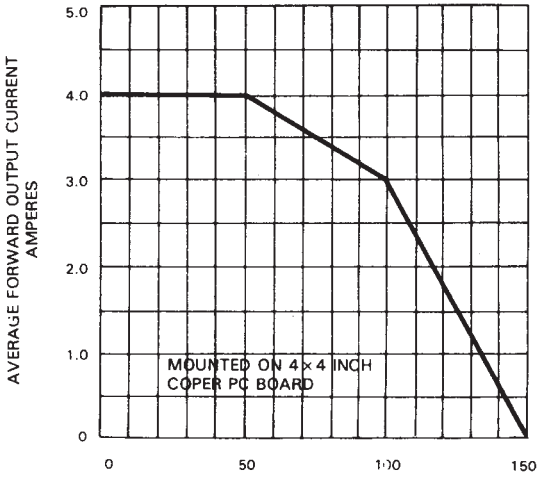


FIG. 3. TYPICAL FORWARD CHARACTERISTICS

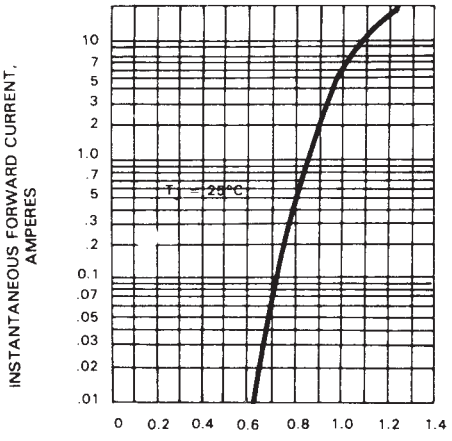


Fig. 4 — TYPICAL REVERSE CHARACTERISTICS (25°C)