



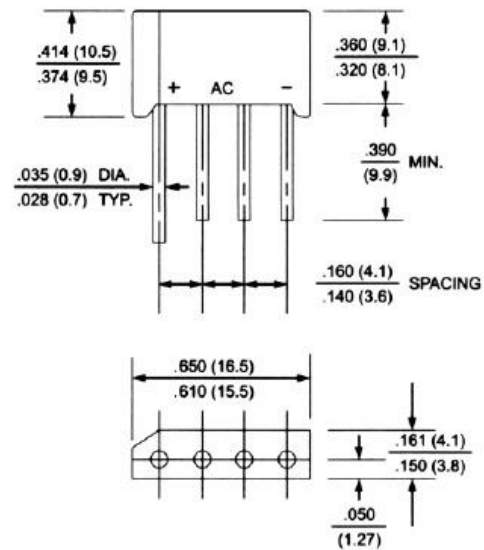
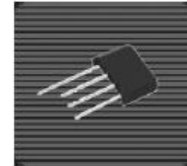
SYNSEMI SEMICONDUCTOR

RS101 thru RS107

Single-Phase Bridge Rectifiers
Voltage Range 50 to 1000 Volts Forward Current 1.0 Ampere

Features

- ◆ Surge overload rating - 50 Amperes peak
- ◆ Ideal for printed circuit boards
- ◆ Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Mounting Position: Any
- ◆ Lead: Silver plated copper lead



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Dimensions in inches and (millimeters)

Parameter	Symbols	RS101	RS102	RS103	RS104	RS105	RS106	RS107	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS 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 rectified output current at $T_A=50^\circ\text{C}$	I_{FAV}	1.0							Amp
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0							Amps
Max. instantaneous forward voltage drop per element at 1.0A	V_F	1.0							Volt
Maximum DC reverse current at rated DC blocking voltage per element $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	I_R	10.0 1.0							μA mA
Operating temperature range	T_J	-55 to +125							$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150							$^\circ\text{C}$

RS101 thru RS107

RATINGS AND CHARACTERISTIC CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

FIG. 1 - DERATING CURVE
OUTPUT RECTIFIED CURRENT

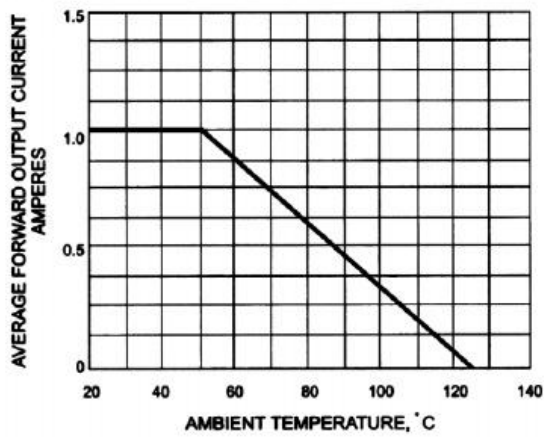


FIG. 2 - TYPICAL FORWARD
CHARACTERISTICS

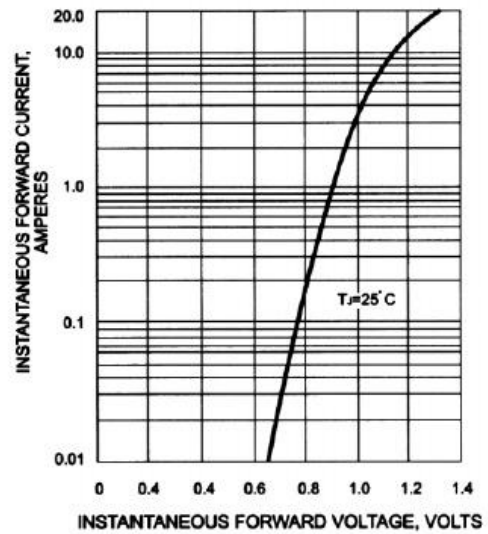


FIG. 3 - TYPICAL REVERSE
CHARACTERISTICS

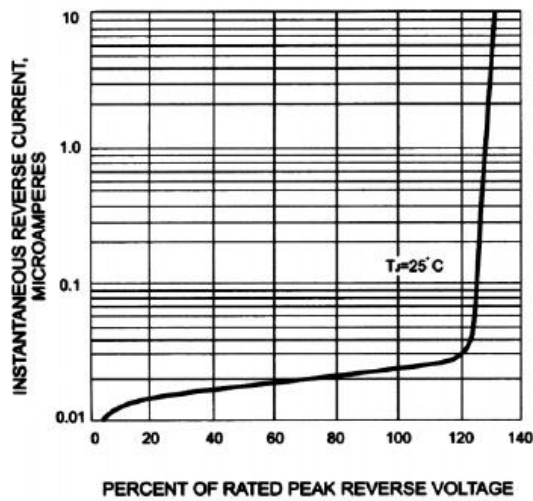


FIG. 4 - MAXIMUM FORWARD SURGE CURRENT

