RS401 THRU RS407

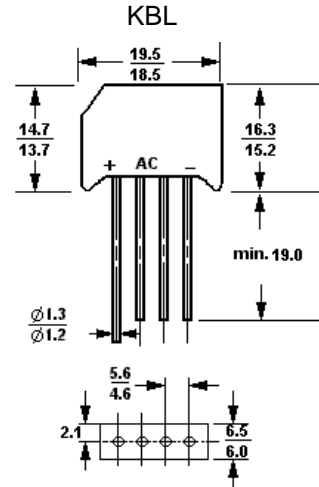### Single-phase Bridge Rectifier
Reverse Voltage - 50 to 1000 V
Forward Current - 4 A

Features

• Ideal for printed circuit board

• Low forward voltage drop

• Low reverse leakage current

Mechanical Data

• Case: KBL(RS-4)

• Polarity: marked on body

• Mounting Position: Any

Dimensions in mm

Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

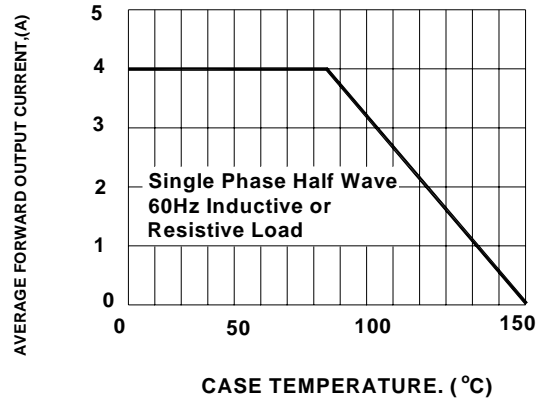| Parameter	Symbols	RS401	RS402	RS403	RS404	RS405	RS406	RS407	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T_A = 50 °C	$I_{F(AV)}$	4							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	200							A
Maximum Forward Voltage Drop per Bridge Element at 4 A	V_F	1.1							V
Maximum Reverse Current at Rated T_A = 25 °C DC Blocking Voltage per Leg T_A = 100 °C	I_R	10 500							μA
Operating Temperature Range	T_j	- 65 to +125							°C
Storage Temperature Range	T_{stg}	- 65 to + 150							°C
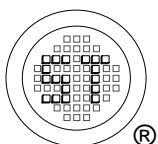
RS401 THRU RS407

FIG.1-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

8.3 ms Single Half Sine-Wave (JEDEC Methode)

PEAK FORWARD SURGE CURRENT,(A)

NUMBER OF CYCLES AT 60 Hz
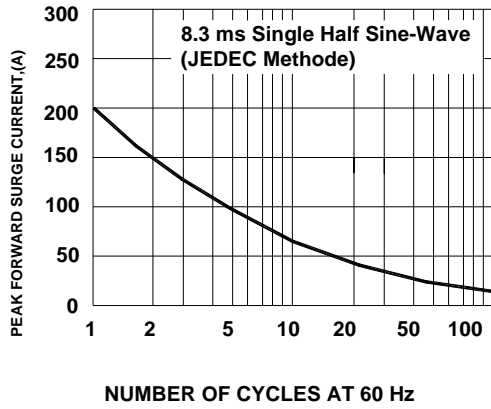
FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE
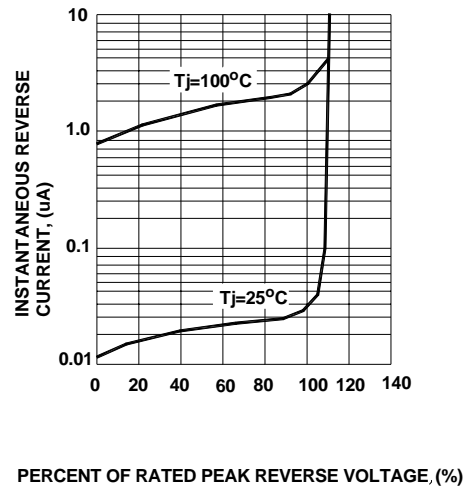

Single Phase Half Wave 60Hz Inductive or Resistive Load

AVERAGE FORWARD OUTPUT CURRENT,(A)

CASE TEMPERATURE. (^{o}C)

FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

Tj=25°C

Pulse Width=300us 1% Duty Cycle

INSTANTANEOUS FORWARD CURRENT,(A)

INSTANTANEOUS FORWARD VOLTAGE,(V)
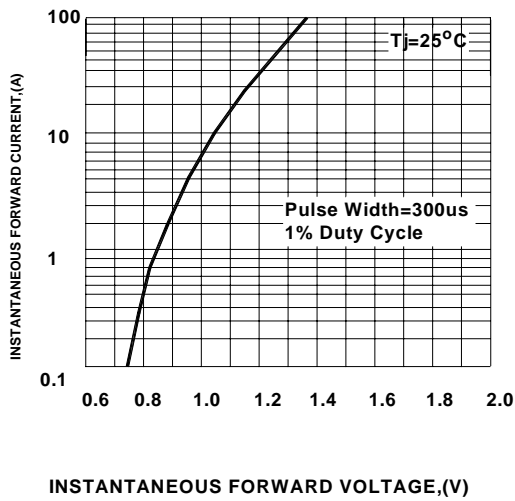
FIG.4-TYPICAL REVERSE CHARACTERISTICS

Tj=100°C

Tj=25°C

INSTANTANEOUS REVERSE CURRENT, (uA)

PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)