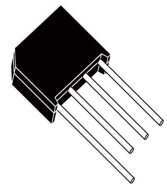
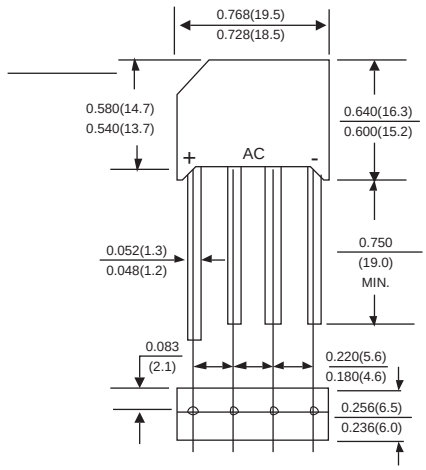
RS401-RS407

SILICON BRIDGE RECTIFIERS

VOLTAGE RANGE: 50 - 1000V
CURRENT: 4.0 A



RS-4



Dimensions in inches and (millimeters)

Features

- Ideal for printed circuit boards
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
  260°C/10 seconds,0.375(9.5mm) lead length,
  5 lbs. (2.3kg) tension
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0

Mechanical Data

- Case: Molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- Polarity: Polarity symbols marked on case
- Mounting Position: Any
- Weight:0.22 ounce, 6.21 grams

RoHS COMPLIANT

Maximum Ratings and Electrical Characteristics

T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	RS401	RS402	RS403	RS404	RS405	RS406	RS407	Unit
Maximum repetitive 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 Tc=50°C(Note 2) output rectified current at TA=50°C(Note 3)	$I_{(AV)}$	4.0 3.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							A
Rating for Fusing(t<8.3ms)	I^2t	93							A^2s
Maximum instantaneous forward voltage drop per birdge element at 4.0A	V_F	1.0							Volts
Maximum DC reverse current TA=25°C	I_R	10							uA
at rated DC blocking voltage TA=100°C		1.0							mA
Typical Junction Capacitance (Note 1)	C_J	55							pF
Typical Thermal Resistance (Note 2)	R_{qJA}	20							°C/W
Operating junction temperature range	T_J	-65 to +150							°C
storage temperature range	T_{STG}	-55 to +150							°C

NOTES:
1.Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2.Unit mounted on 3.0" x 3.0" x 0.11" thick(7.5x7.5x0.3cm) Al. plate.
3.P.C.Board mounted with 0.5" x0.5" (12x12mm) copper pads,0.375" (9.5mm) lead length.

FIG.1 -- TYPICAL FORWARD CURRENT DERATING CURVE

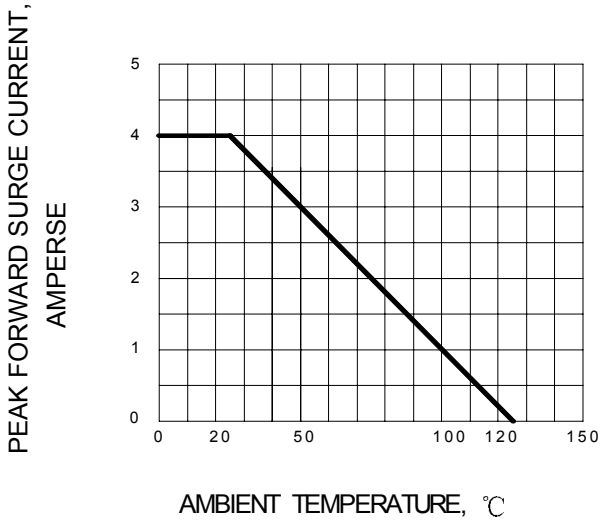


FIG.2 -- MAXIMUM FORWARD SURGE CURRENT

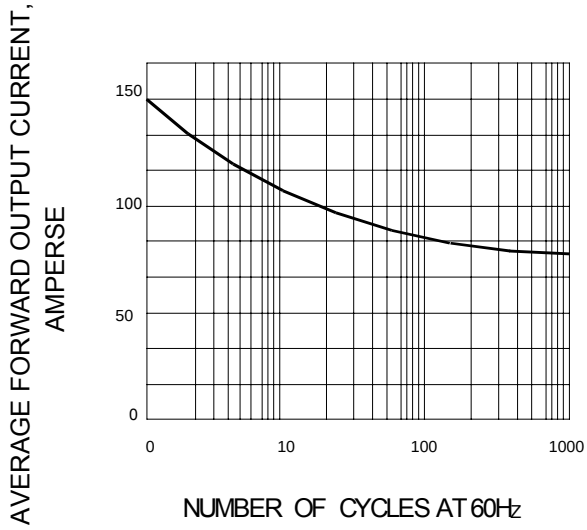


FIG.3 -- TYPICAL FORWARD CHARACTERISTIC

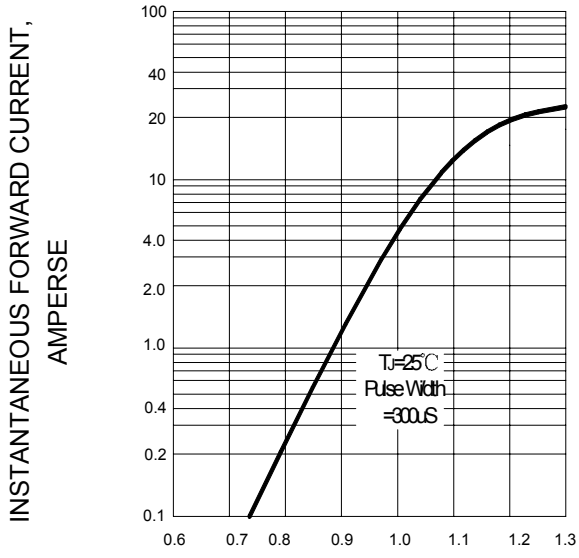


FIG.4 -- TYPICAL REVERSE CHARACTERISTIC