



# DATA SHEET

## FL400 thru FL408

### IN-LINE MINIATURE SINGLE PHASE SILICON BRIDGE RECTIFIER

**VOLTAGE** 50 to 800 Volts **CURRENT** 4.0 Amperes

**Recongized File # E111753**

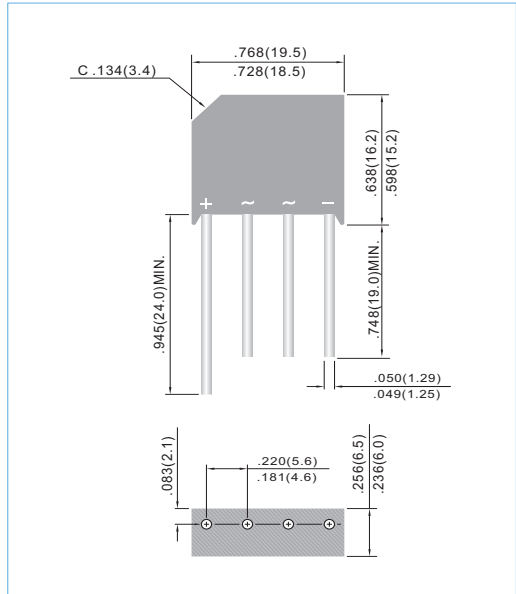
#### FEATURES

- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Surge overload rating: 200 Amperes peak

#### MECHANICAL DATA

Terminals: Leads solderable per MIL-STD-202, Method 208  
 Mounting position: Any  
 Weight: 0.2 ounce, 5.6 grams

FL Unit: inch (mm)



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.  
 For Capacitive load derate current by 20%.

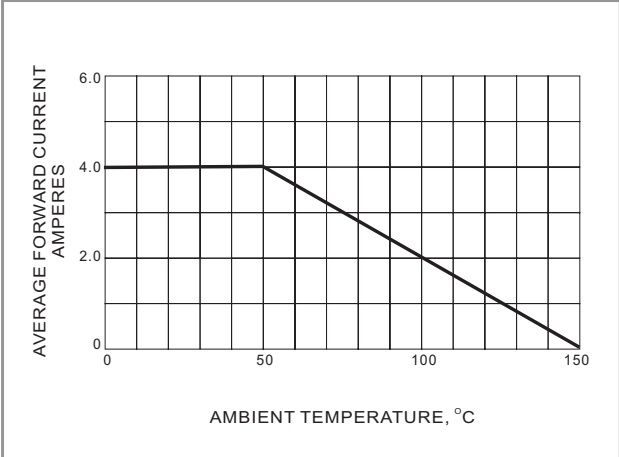
PARAMETER	SYMBOL	FL400	FL401	FL402	FL404	FL406	FL408	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	V
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	V
Maximum Average Forward Current For Resistive Load at TA=50°C	I <sub>AV</sub>	4.0						A
Peak One Cycle Surge Overload Current	I <sub>FSM</sub>	200						A
Maximum Forward Voltage per Bridge Element at 4.0A	V <sub>F</sub>	1.1						V
Maximum Reverse Leakage Current at Rated @ TA=25°C Dc Blocking Voltage @ TA=100°C	I <sub>R</sub>	10 1000						uA
I <sub>t</sub> Rating for fusing ( t<8.35ms)	I <sub>t</sub>	93						A <sup>2</sup> t
Typical Thermal Resistance per leg (Note 1) (Note 2)	R <sub>θJA</sub> R <sub>θJL</sub>	19 2.4						°C/W
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150						°C

#### NOTES:

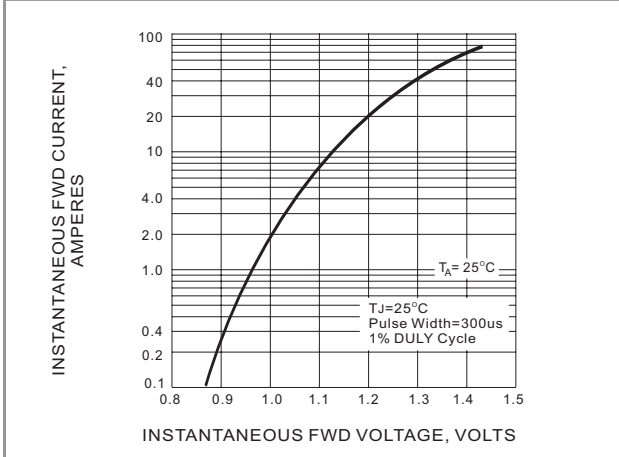
1. Thermal resistance from junction to ambient with units mounted on 0.3 x 0.3 x 0.11" thick ( 7.5 x 7.5 x 0.3cm) AL Plate.
2. Thermal resistance from junction to lead with units mounted on P.C.B with 0.375" ( 9.5mm) lead length and 0.5 x 0.5" ( 12 x 12 mm) copper pads.



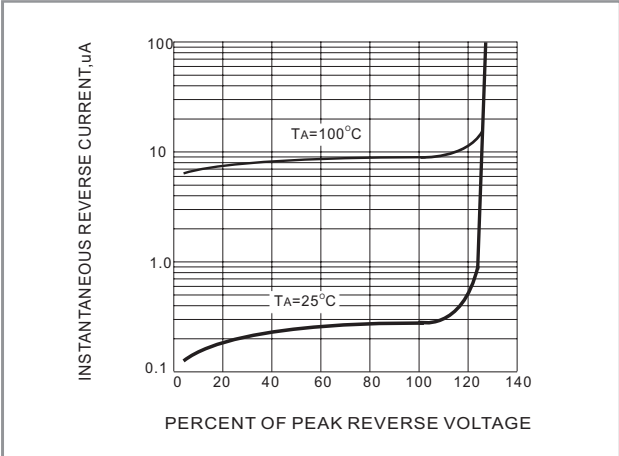
**RATING AND CHARACTERISTIC CURVES**



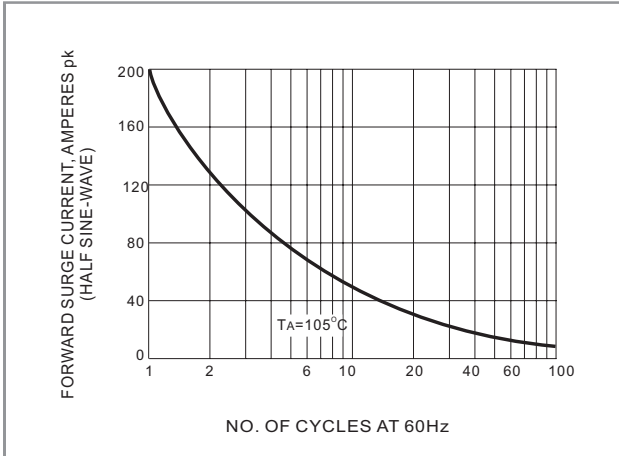
**FIG. 1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG. 2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 3 TYPICAL REVERSE CHARACTERISTICS**



**FIG. 4 MAX NON-REPETITIVE SURGE CURRENT**