



SHANGHAI SUNRISE ELECTRONICS CO., LTD.

## FR101G THRU FR107G

GLASS PASSIVATED

FAST RECOVERY RECTIFIER

**VOLTAGE: 50 TO 1000V CURRENT: 1.0A**

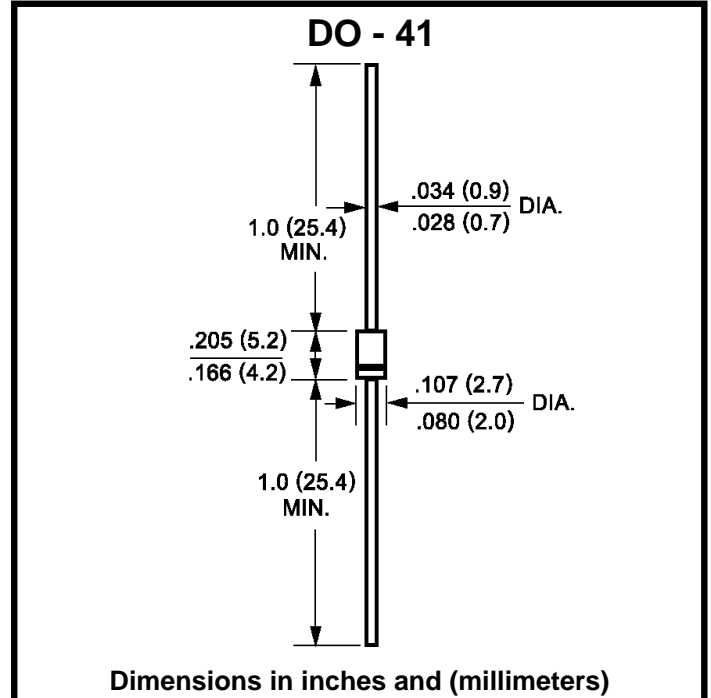
TECHNICAL  
SPECIFICATION

### FEATURES

- Molded case feature for auto insertion
- Glass passivated chip
- High current capability
- Low leakage current
- Fast switching for high efficiency
- High surge capability
- High temperature soldering guaranteed:  
250°C/10sec/0.375"(9.5mm) lead length  
at 5 lbs tension

### MECHANICAL DATA

- Terminal: Plated axial leads solderable per  
MIL-STD 202E, method 208C
- Case: Molded with UL-94 Class V-O  
recognized flame retardant epoxy
- Polarity: Color band denotes cathode
- Mounting position: Any



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Single-phase, half-wave, 60Hz, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

RATINGS	SYMBOL	FR 101G	FR 102G	FR 103G	FR 104G	FR 105G	FR 106G	FR 107G	UNITS
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current (9.5mm lead length, at T <sub>a</sub> =55°C)	I <sub>F(AV)</sub>	1.0							A
Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load)	I <sub>FSM</sub>	30.0							A
Maximum Instantaneous Forward Voltage (at rated forward current )	V <sub>F</sub>	1.3							V
Maximum DC Reverse Current      T <sub>a</sub> =25°C (at rated DC blocking voltage)      T <sub>a</sub> =100°C	I <sub>R</sub>	5.0 100							μA μA
Maximum Reverse Recovery Time    (Note 1)	t <sub>rr</sub>	150				250	500		nS
Typical Junction Capacitance        (Note 2)	C <sub>J</sub>	15.0							pF
Typical Thermal Resistance          (Note 3)	R <sub>θ(ja)</sub>	50							°C/W
Storage and Operation Junction Temperature	T <sub>STG</sub> , T <sub>J</sub>	-65 to +150							°C

Note:

- 1.Reverse recovery condition  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=0.25\text{A}$
- 2.Measured at 1.0 MHz and applied voltage of 4.0V<sub>dc</sub>
- 3.Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C. board mounted

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