



SHANGHAI SUNRISE ELECTRONICS CO., LTD.

FR301G THRU FR307G

GLASS PASSIVATED

FAST RECOVERY RECTIFIER

VOLTAGE: 50 TO 1000V CURRENT: 3.0A

TECHNICAL
SPECIFICATION

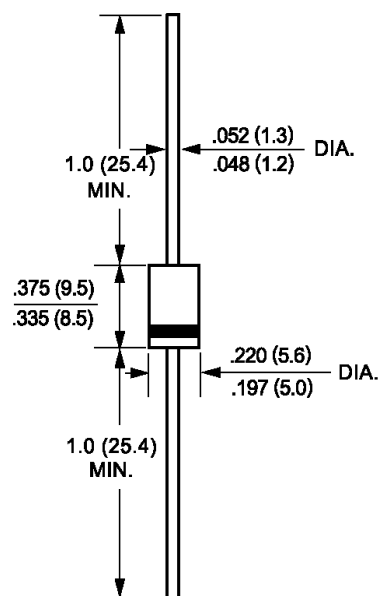
FEATURES

- 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

DO - 201AD



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 301G	FR 302G	FR 303G	FR 304G	FR 305G	FR 306G	FR 307G	UNITS
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 Rectified Current (9.5mm lead length, at T _a =55°C)	I _{F(AV)}	3.0							A
Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load)	I _{FSM}	125							A
Maximum Instantaneous Forward Voltage (at rated forward current)	V _F	1.3							V
Maximum DC Reverse Current T _a =25°C (at rated DC blocking voltage) T _a =100°C	I _R	5.0 100							μA μA
Maximum Reverse Recovery Ti (Note 1)	trr	150				250	500		nS
Typical Junction Capacitance (Note 2)	C _J	40							pF
Typical Thermal Resistance (Note 3)	R _{θ(ja)}	30							°C/W
Storage and Operation Junction Temperature	T _{STG, T_J}	-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 $4.0V_{dc}$

3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C. board mounted

<http://www.sse-diode.com>