

FR301G THRU FR307G

FAST RECOVERY GLASS PASSIVATED RECTIFIERS

FEATURES:

- High temperature bonded construction
- Fast switching for use in high frequency circuit
- No thermal runaway at 3.0 Amp. Current $T_a=55^\circ\text{C}$
- High temperature soldering guaranteed : $250^\circ\text{C}/10$ seconds, 0.375" lead length, 5lbs.(2.3kg) tension

MECHANICAL DATA

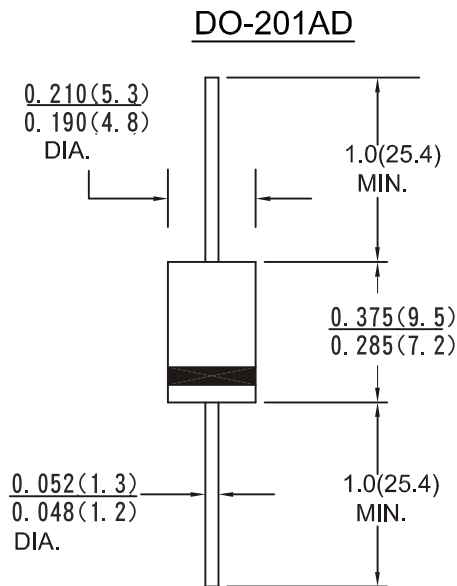
Case : Molded plastic UL 94V-0 recognized flame retardant epoxy

Terminals : Axial leads, solderable per MIL-STD-202, Method 208

Polarity : Color band on body denotes cathode end

Mounting Position : Any

Weight : 1.12 grams, 0.04 ounce



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Characteristic	Symbol	FR 301G	FR 302G	FR 303G	FR 304G	FR 305G	FR 306G	FR 307G	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current .375 lead length at $T_a=55^\circ\text{C}$	$I_{(AV)}$	3.0							Amps
Peak forward surge current ,8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	I_{FSM}	125.0							Amps
Maximum instantaneous forward voltage drop at 3.0A	V_F	1.3							Volts
Maximum DC reverse current at rated DC blocking voltage $T_a=25^\circ\text{C}$ $T_a=125^\circ\text{C}$	I_R	5.0 100.0							μA
Typical reverse recovery time (note 1)	t_{rr}	150	150	150	150	250	500	500	nS
Typical thermal resistance	R_{th-JA}	20							$^\circ\text{C/W}$
Typical junction capacitance (note 2)	C_j	60.0							pF
Operating junction and storage temperature range	T_j, T_{stg}	-65 to +150							$^\circ\text{C}$

NOTES:1. Reverse recovery test condition; $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
 2. Measured at 1MHz and Applied reverse voltage of 4.0V.DC

RATINGS AND CHARACTERISTIC CURVES FR301G THRU FR307G

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIER CURRENT

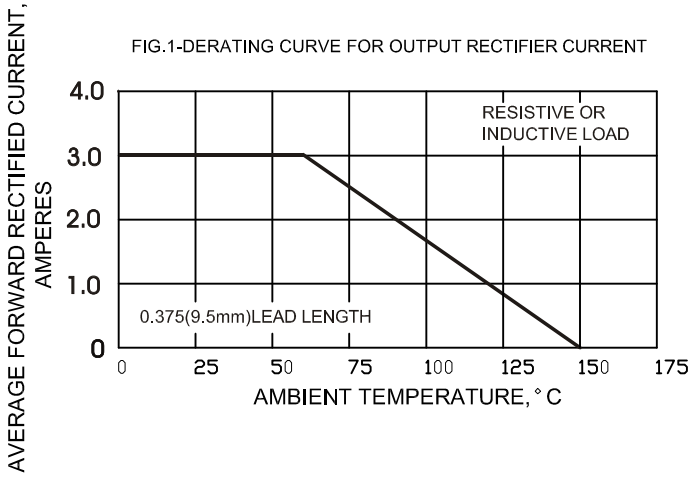


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

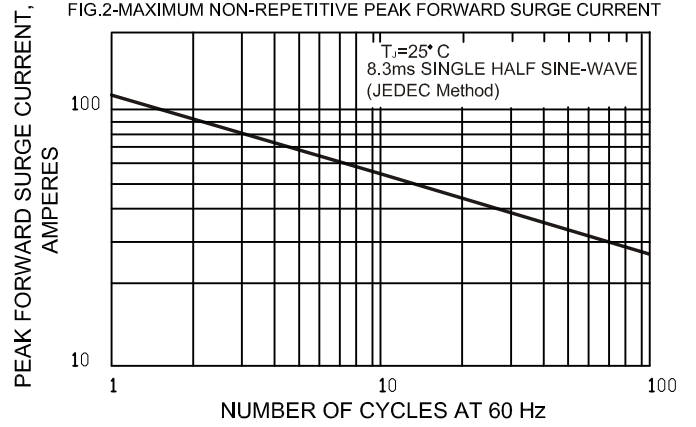


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

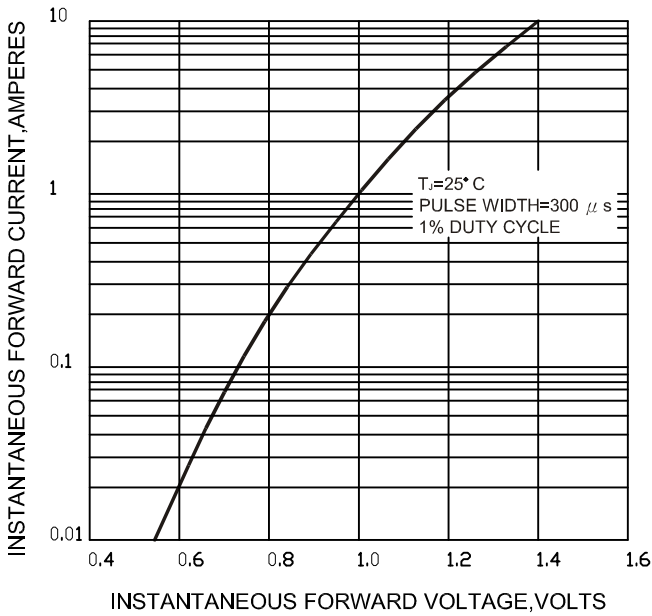


FIG.4-TYPICAL REVERSE CHARACTERISTICS

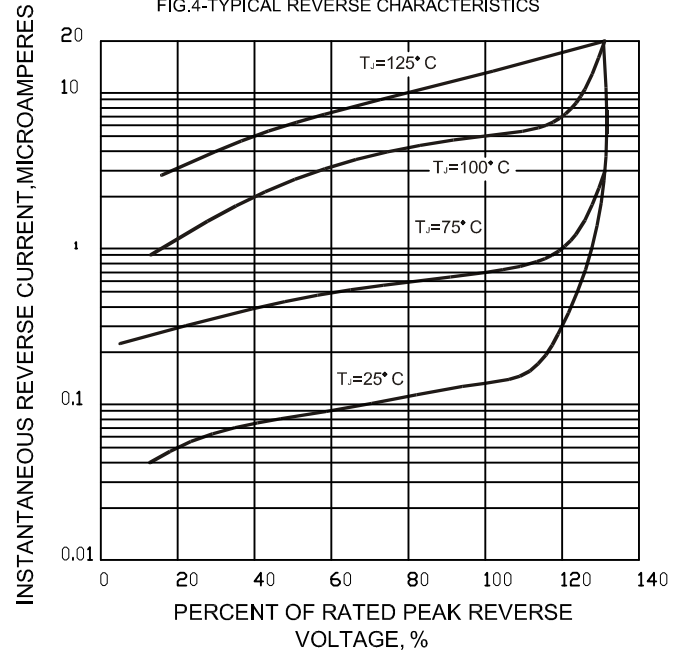


FIG.5-TYPICAL JUNCTION CAPACITANCE

