SEMICONDUCTOR

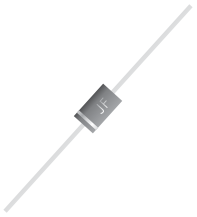
FR201G THRU FR207G

GLASS PASSIVATED FAST RECOVERY RECTIFIER

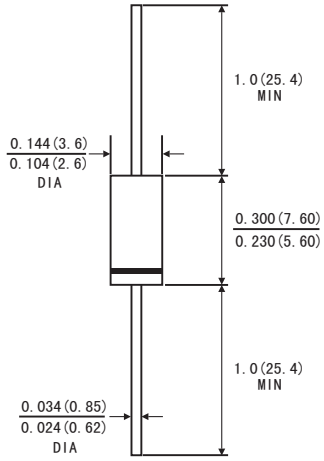
Reverse Voltage: 50 to 1000 Volts
Forward Current:2.0Amperes

FEATURES

- Low leakage
- Low forward voltage drop
- High current capability
- High current surge
- High reliability
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU



DO-15



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC DO-15 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750,Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.014ounce, 0.39 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	Symbols	FR 201G	FR 202G	FR 203G	FR 204G	FR 205G	FR 206G	FR 207G	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	$I_{(AV)}$	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	60							Amps
Maximum Instantaneous Forward Voltage at 2.0 A	V_F	1.3							Volts
Maximum DC Reverse Current at rated DC blocking voltage T_A=25°C	I_R	5.0							μA
Maximum DC Reverse Current at rated DC blocking voltage T_A=100°C	I_R	100							μA
Maximum reverse recovery time(Note1)	t_{rr}	150				250	500		ns
Typical junction capacitance(Note2)	C_J	30							pF
Operating junction and storage temperature range	T_J	-55 to+150							°C
	T_{STG}	-55 to+150							

Note: 1.Test conditions: I_F=0.5A,I_R=1.0A,I_{RR}=0.25A.

2.Measured at 1MHz and applied reverse voltage of 4.0 Volts D.C.

RATINGS AND CHARACTERISTIC CURVES FR201G THRU FR207G

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

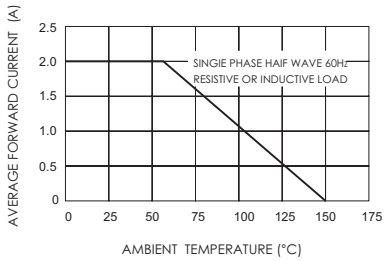


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

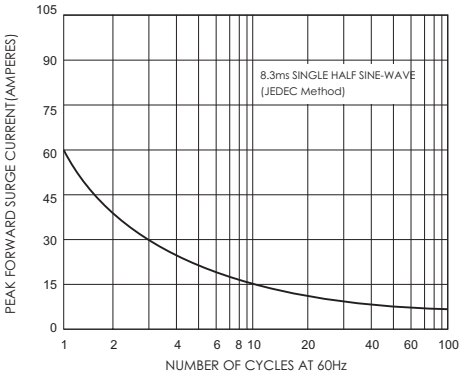


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

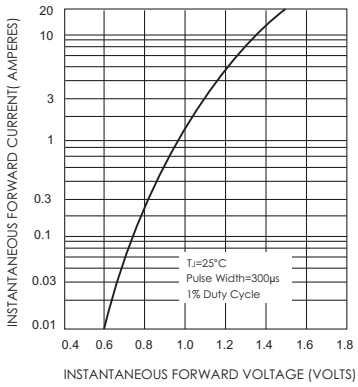


FIG.4-TYPICAL JUNCTION CAPACITANCE

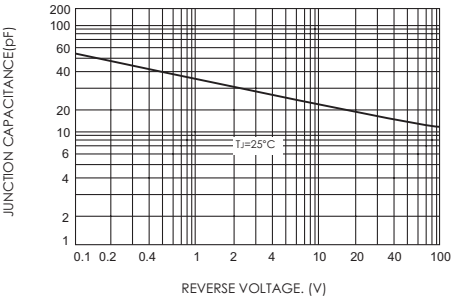
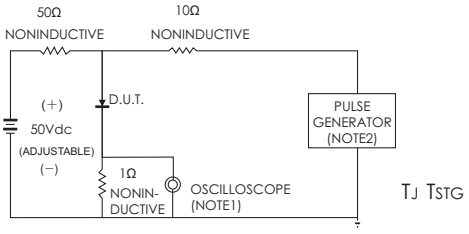
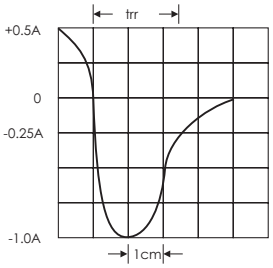


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:1.Rise Time=7ns max. input Impedance=1 megohm 22pF
2.Rise Time=10ns max. source Impedance= 50 ohms



SET TIME BASE FOR 50/100 ns/cm