



FAST RECOVERY GLASS PASSIVATED RECTIFIER

FR201G THRU FR207G

VOLTAGE RANGE
CURRENT

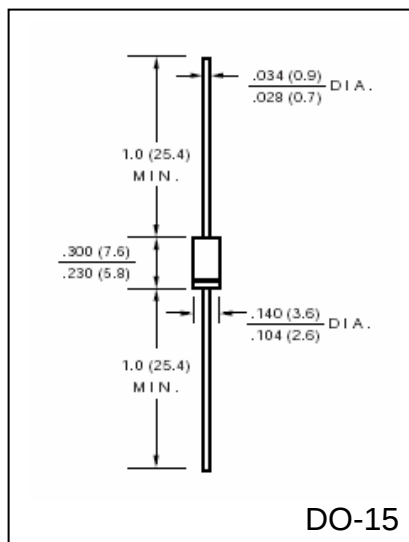
50 to 1000 Volts
2.0 Ampere

FEATURES

- Fast switching speed for high efficiency
- Glass passivated chip junction
- Low reverse leakage
- High forward surge current capacity
- High temperature soldering guaranteed:
260 /10 seconds, 0.375" (9.5mm) lead length

MECHANICAL DATA

- Case: transfer molded plastic
- Epoxy: UL94V – 0 rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: any
- Weight: 0.014 ounce, 0.39 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings 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	UNIT
Maximum Repetitive 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, 0.375" (9.5mm) lead length At T _C = 55°C	I _(AV)	2.0							Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I _{FSM}	70							Amps
Maximum Instantaneous Forward Voltage @ 2.0A	V _F	1.3							Volts
Maximum DC Reverse Current at Rated T _A = 25 °C	I _R	5.0							μA
DC Blocking Voltage per element T _A = 125 °C		500							
Maximum Reverse Recovery Time Test conditions I _F = 0.5A, I _R = 1.0A, I _{RR} = 0.25A	t _{rr}	150				250	500		nS
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C _J	20							pF
Typical Thermal Resistance (Note 1)	R _{θJA}	40							°C/W
Operating Junction Temperature Range	T _J	(-65 to +175)							°C
Storage Temperature Range	T _{STG}	(-65 to +175)							°C

Notes:

1. Thermal resistance from junction to ambient with 0.375" (9.5mm) lead length, PCB mounted



RATINGS AND CHARACTERISTIC CURVES FR201G THRU FR201G

FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

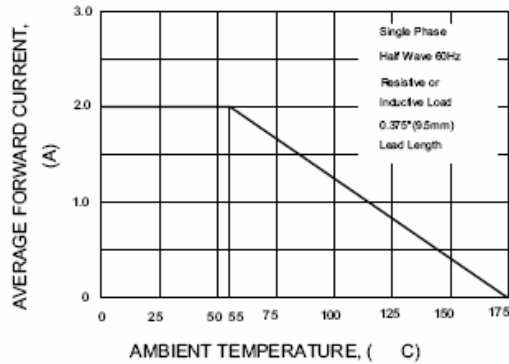


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

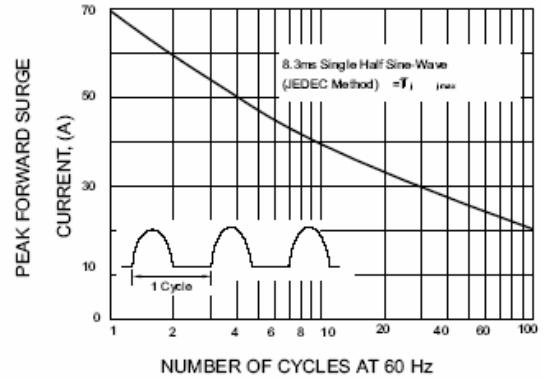


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

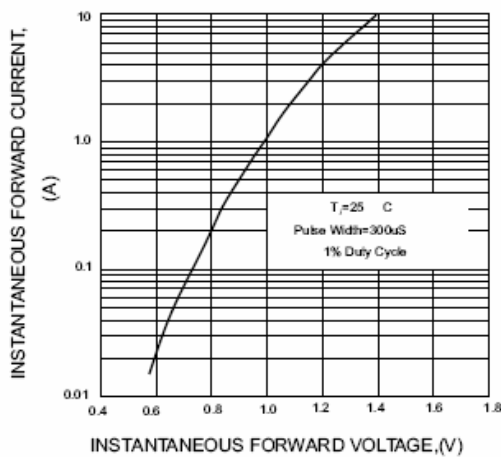


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

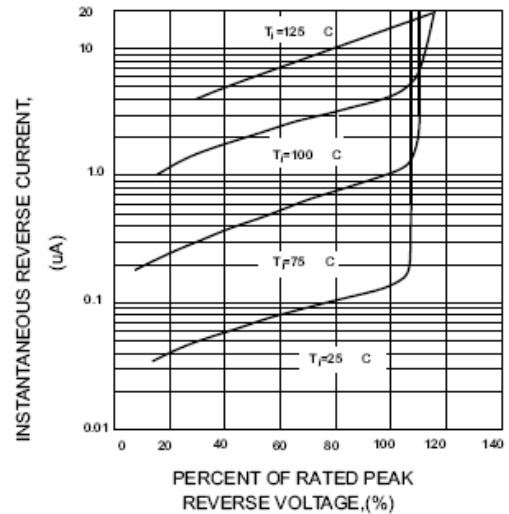


FIG.5-TYPICAL JUNCTION CAPACITANCE

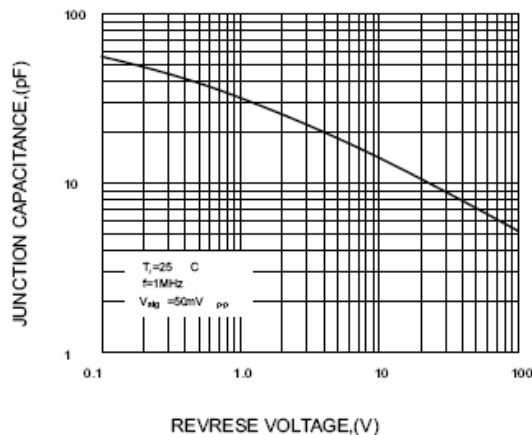


FIG.6-TEST CIRCUIT DIAGRAM AND
REVERSE RECOVERY TIME CHARACTERISTIC

