



SEMICONDUCTOR

RGP10A THRU RGP10M

GLASS PASSIVATED FAST RECOVERY RECTIFIER

Reverse Voltage: 50 to 1000 Volts

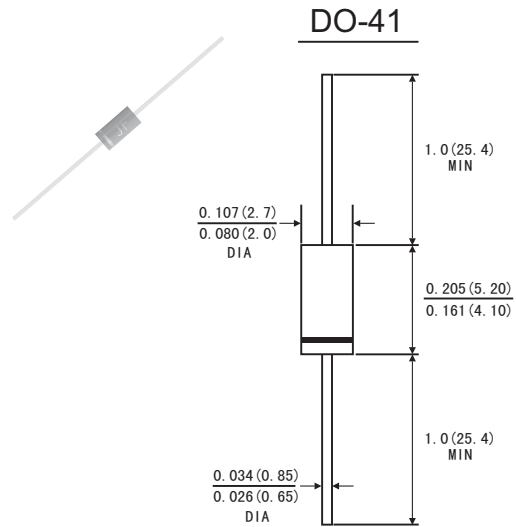
Forward Current: 1.0 Ampere

FEATURES

- Glass passivated junction
- Plastic package has Underwriters Laboratory Flammability
- Classification 94V-0
- Construction utilizes void-free molded plastic technique
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

MECHANICAL DATA

- Case: JEDEC DO-41 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.012 ounce, 0.33 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Dimensions in inches and (millimeters)

(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	RGP 10A	RGP 10B	RGP 10D	RGP 10G	RGP 10J	RGP 10K	RGP 10M	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	$I_{(AV)}$	1.0							Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30.0							Amps	
Maximum Instantaneous Forward Voltage at 1.0 A	V_F	1.3							Volts	
Maximum DC Reverse Current at rated DC blocking voltage	$T_a=25^\circ\text{C}$	IR							5.0	μA
	$T_a=125^\circ\text{C}$								30	
	$T_a=150^\circ\text{C}$								50	
Maximum reverse recovery time (Note 1)	t_{rr}	150				250	500	ns		
Typical junction capacitance (Note 2)	C_J	15.0							pF	
Typical thermal resistance (Note 3)	$R_{\theta JA}$	55.0							°C/W	
Operating junction and storage temperature range	T_J T_{STG}	-55 to +175							°C	

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

3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead lengths, P.C.B. Mounted.

RATINGS AND CHARACTERISTIC CURVES RGP10A THRU RGP10M

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

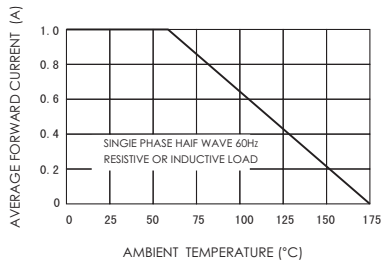


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

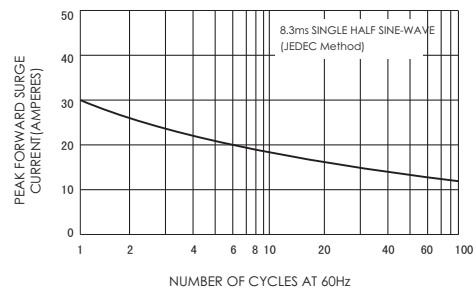


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

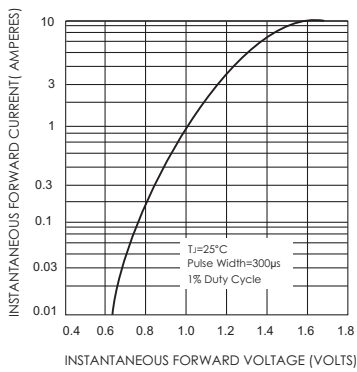


FIG.4-TYPICAL REVERSE CHARACTERISTICS

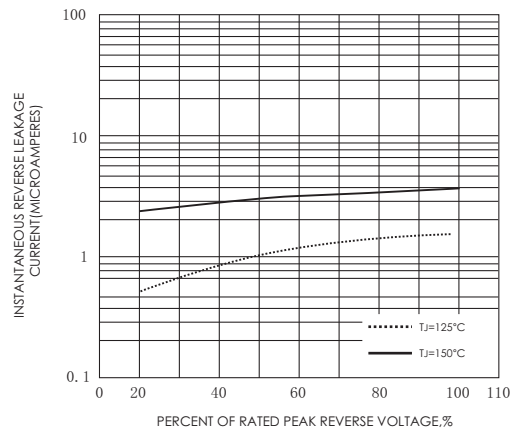


FIG.5-TYPICAL JUNCTION CAPACITANCE

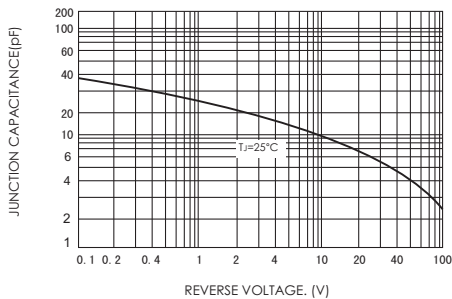


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

