RGP10A THRU RGP10M

FAST RECOVERY PLASTIC RECTIFIERS
SINTERED GLASS JUNCTION

Reverse Voltage – 50 to 1000 Volts
Forward Current – 1.0 Amperes

Features

• High temperature metallurgically bonded construction
  Sintered glass cavity free junction.
• Capability of meeting environmental standard of
  MIL-S-19500.
• High temperature soldering guaranteed
  350°C/10sec/0.375” lead length at 5 lbs tension
  Operate at T A = 55°C with no thermal run away
  Typical ir<0.1μA.

Mechanical Data

• Terminals: Plated axial leads, solderable per
  MIL-STD 202E, method 208C
• Polarity: Color band denotes cathode
• Mounting Position: Any

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.

<table>
<thead>
<tr>
<th>Symbols</th>
<th>RGP 10A</th>
<th>RGP 10B</th>
<th>RGP 10D</th>
<th>RGP 10G</th>
<th>RGP 10J</th>
<th>RGP 10K</th>
<th>RGP 10M</th>
<th>Units</th>
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<tr>
<td>VRRM</td>
<td>50</td>
<td>100</td>
<td>200</td>
<td>400</td>
<td>600</td>
<td>800</td>
<td>1000</td>
<td>V</td>
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<td>-65 to +175</td>
<td>°C</td>
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Notes:
1. Reverse recovery condition I R = 0.5A, I F = 1.0A, I r = 0.25A.
2. Measured at 1.0MHz and applied reverse voltage of 4.0 VDC.
3. Thermal resistance from junction to ambient at 3/8” lead length, P.C. board mounted.
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Forward current derating curve

- Average forward rectified current, A
- Ambient Temperature (°C)
- 0.375" (9.5mm) lead length: resistive or inductive load

Maximum non-repetitive peak forward surge current

- Forward surge current, A
- Number of cycles at 50Hz
- 8.3mm Single half sine wave (JEDEC method)

Typical instantaneous forward characteristics

- Instantaneous forward current, A
- Instantaneous forward voltage, V
- TJ = 25°C
- Pulse width = 300μs
- 1% Duty Cycle

Typical reverse characteristics

- Instantaneous reverse current, microammperes
- Percent of rated peak reverse voltage, %
- TJ = 25°C
- TJ = 75°C
- TJ = 125°C

Typical junction capacitance

- Junction capacitance, pF
- Reverse voltage, V
- f = 1 MHz
- TJ = 25°C

Typical transient thermal impedance

- Transient thermal impedance, °C/w
- Pulse duration, sec
- TJ = 25°C

Dated: 14/05/2003