



ELECTRONICS, INC.

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RGP15A thru RGP15M Fast Switching Plastic Rectifier DO201AD Type Package

Description:

The RGP15 Series rectifiers are glass passivated junction, fast switching plastic rectifiers used for fast switching rectification of power supplies, inverters, converters, and freewheeling diodes for consumer and telecommunication applications.

Features:

- Superrectifier Structure for High Reliability Condition
- Fast Switching for High Efficiency
- Low Leakage Current, Typical I_R less than $0.1\mu A$
- High Forward Surge Capability

Absolute Maximum Ratings: ($T_A = +25^\circ C$, unless otherwise specified)

Max. Repetitive Reverse Voltage, V_{RRM}

RGP15A	50V
RGP15B	100V
RGP15D	200V
RGP15G	400V
RGP15J	600V
RGP15K	800V
RGP15M	1000V

Max. RMS Voltage, V_{RMS}

RGP15A	35V
RGP15B	70V
RGP15D	140V
RGP15G	280V
RGP15J	420V
RGP15K	560V
RGP15M	700V

Max. DC Blocking Voltage, V_{DC}

RGP15A	50V
RGP15B	100V
RGP15D	200V
RGP15G	400V
RGP15J	600V
RGP15K	800V
RGP15M	1000V

Average Rectified Forward Current ($T_A = +55^\circ C$, .375" (9.5mm) Lead Length), $I_{F(AV)}$ 1.5A

Peak Forward Surge Current, I_{FSM}

8.3ms single half sine wave superimposed on rated load 50A

Max. Full Load Reverse Current, $I_{R(AV)}$

Full Cycle Average, $T_A = +55^\circ C$, .375" (9.5mm) Lead Length $100\mu A$

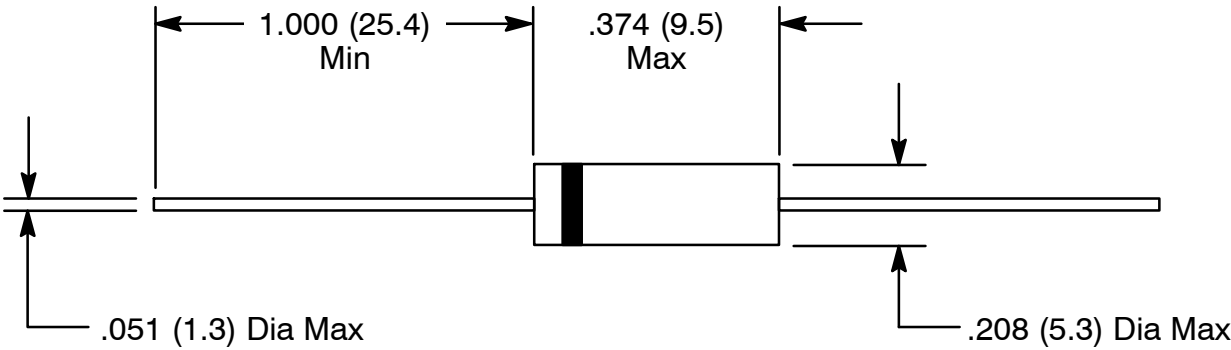
Storage Temperature Range, T_{stg} -65° to $+175^\circ C$

Typical Thermal Resistance, Junction-to-Ambient (Note 1), R_{thJA} $45^\circ C/W$

Note 1. Thermal resistance from junction to ambient at .375" (9.5mm) lead length, PCB mounted.

Electrical Characteristics: ($T_A = +25^{\circ}\text{C}$, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Instantaneous Forward Voltage	V_F	$I_F = 1.5\text{A}$	–	–	1.3	V
DC Reverse Leakage Current	I_R	At Rated DC Blocking Voltage	$T_A = +25^{\circ}\text{C}$	–	5	μA
			$T_A = +150^{\circ}\text{C}$	–	200	μA
Reverse Recovery Time RGP15A, RGP15B	t_{rr}	$I_F = 500\text{mA}, I_R = 1\text{A}, I_{rr} = 250\text{mA}$	–	–	150	ns
RGP15D, RGP15G			–	–	150	ns
RGP15J			–	–	250	ns
RGP15K, RGP15M			–	–	500	V
Junction Capacitance	C_J	$V_R = 4\text{V}, f = 1\text{MHz}$	–	25	–	pF



Color Band Denotes Cathode