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RGP30B thru RGP30M Fast Switching Plastic Rectifier DO201AD Type Package

Description:

The RGP30 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 $0.2\mu A$
- High Forward Surge Capability

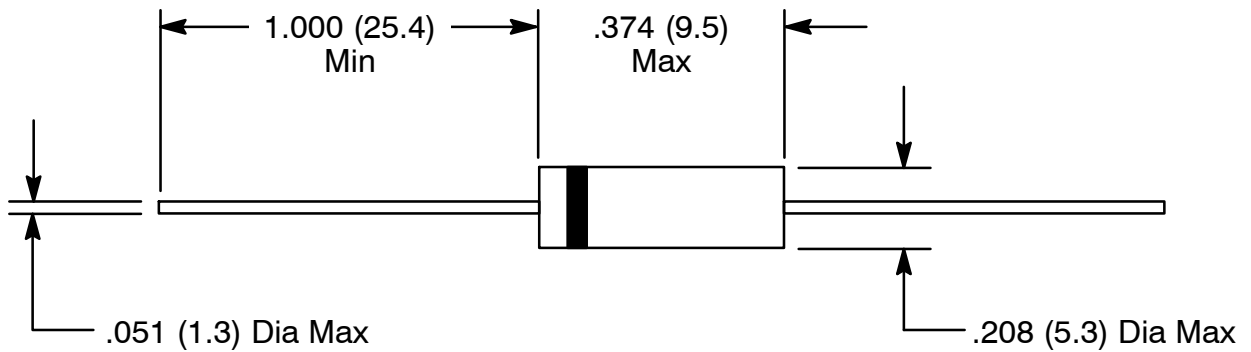
Absolute Maximum Ratings: ($T_A = +25^\circ C$, unless otherwise specified)

Max. Repetitive Reverse Voltage, V_{RRM}	
RGP30B	100V
RGP30D	200V
RGP30G	400V
RGP30J	600V
RGP30M	1000V
Max. RMS Voltage, V_{RMS}	
RGP30B	70V
RGP30D	140V
RGP30G	280V
RGP30J	420V
RGP30M	700V
Max. DC Blocking Voltage, V_{DC}	
RGP30B	100V
RGP30D	200V
RGP30G	400V
RGP30J	600V
RGP30M	1000V
Average Rectified Forward Current ($T_A = +55^\circ C$, .375" (9.5mm) Lead Length), $I_{F(AV)}$	
3A	
Peak Forward Surge Current, I_{FSM}	
8.3ms single half sine wave superimposed on rated load	
125A	
Max. Full Load Reverse Current, $I_{R(AV)}$	
Full Cycle Average, $T_A = +55^\circ C$, .375" (9.5mm) Lead Length	
100 μA	
Storage Temperature Range, T_{stg}	
-65° to +175°C	
Typical Thermal Resistance, Junction-to-Ambient (Note 1), R_{thJA}	
20°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	$I_F = 3\text{A}$	-	-	1.3	V	
DC Reverse Leakage Current	I_R	At Rated DC Blocking Voltage	$T_A = +25^\circ\text{C}$	-	-	5	μA
			$T_A = +150^\circ\text{C}$	-	-	100	μA
Reverse Recovery Time RGP15B, RGP15D, RGP15G RGP15J RGP15M	t_{rr}	$I_F = 500\text{mA}$, $I_R = 1\text{A}$, $I_{rr} = 250\text{mA}$	-	-	150	ns	
			-	-	250	ns	
			-	-	500	V	
Junction Capacitance	C_J	$V_R = 4\text{V}$, $f = 1\text{MHz}$	-	60	-	pF	



Color Band Denotes Cathode