

RGP25A, RGP25B, RGP25D, RGP25G, RGP25J, RGP25K, RGP25M

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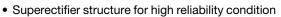
Vishay General Semiconductor

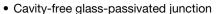
Glass Passivated Junction Fast Switching Plastic Rectifier



PRIMARY CHARACTERISTICS							
I _{F(AV)}	2.5 A						
V _{RRM}	50 V, 100 V, 200 V, 400 V, 600 V, 800 V, 1000 V						
I _{FSM}	100 A						
t _{rr}	150 ns, 250 ns, 500 ns						
I _R	5.0 μA						
V _F	1.3 V						
T _J max.	175 °C						
Package	DO-201AD						
Circuit configuration	Single						

FEATURES





RoHS

- Fast switching for high efficiency
- Low leakage current, typical I_R less than 0.2 μA
- High forward surge capability
- Solder dip 275 °C max. 10 s, per JESD 22-B106
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

TYPICAL APPLICATIONS

For general purpose of medium frequency rectification.

MECHANICAL DATA

Case: DO-201AD, molded epoxy over glass body Molding compound meets UL 94 V-0 flammability rating Base P/N-E3 - RoHS-compliant, commercial grade

Terminals: matte tin plated leads, solderable per

J-STD-002 and JESD 22-B102

E3 suffix meets JESD 201 class 1A whisker test

Polarity: color band denotes cathode end

MAXIMUM RATINGS (T _A = 25 °C unless otherwise noted)										
PARAMETER	SYMBOL	RGP25A	RGP25B	RGP25D	RGP25G	RGP25J	RGP25K	RGP25M	UNIT	
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V	
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V	
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V	
Maximum average forward rectified current 0.375" (9.5 mm) lead length at T _A = 55 °C	I _{F(AV)}		2.5							
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}		100							
Maximum full load reverse current, full cycle average 0.375 " (9.5 mm) lead length at $T_A = 55$ °C	I _{R(AV)}	100							μА	
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +175							°C	

Not for New Designs



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ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)											
PARAMETER	TEST C	ONDITIONS	SYMBOL	RGP25A RGP25B RGP25D RGP25G RGP25J RGP25K RG						RGP25M	UNIT
Maximum instantaneous forward voltage	2.5 A		V _F	1.3						V	
Maximum DC reverse current at		T _A = 25 °C		5.0						μA	
rated DC blocking voltage		T _A = 125 °C	'K	IR 200						P/A	
Maximum reverse recovery time	$I_F = 0.5$ $I_{rr} = 0.2$	A, I _R = 1.0 A, 5 A	t _{rr}	150 250 500				00	ns		
Typical junction capacitance	4.0 V, 1	MHz	СЈ	60				pF			

THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)								
PARAMETER SYMBOL RGP25A RGP25B RGP25D RGP25G RGP25J RGP25K RGP25M U						UNIT		
Typical thermal resistance	R _{0JA} (1)	20				°C/W		

Note

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

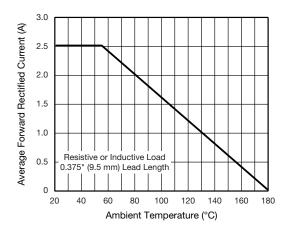
ORDERING INFORMATION (Example)									
PREFERRED P/N	FERRED P/N UNIT WEIGHT (g) PREFERRED PACKAGE CODE BASE QUANTITY DELIVERY MODE								
RGP25J-E3/54	1.28	54	1400	13" diameter paper tape and reel					
RGP25J-E3/73	1.28	73	1000	Ammo pack packaging					



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RATINGS AND CHARACTERISTICS CURVES ($T_A = 25$ °C unless otherwise noted)



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Fig. 1 - Forward Current Derating Curve

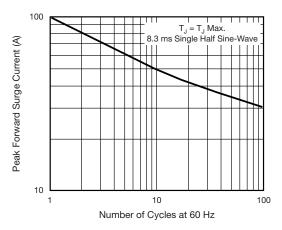


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

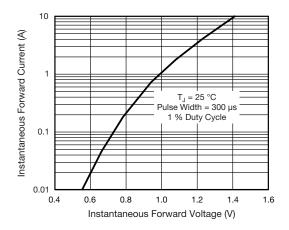


Fig. 3 - Typical Instantaneous Forward Characteristics

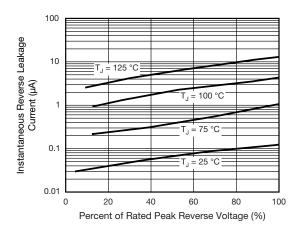


Fig. 4 - Typical Reverse Characteristics

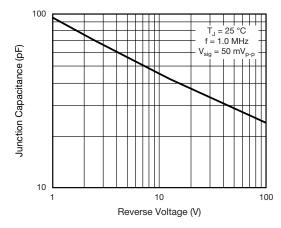


Fig. 5 - Typical Junction Capacitance

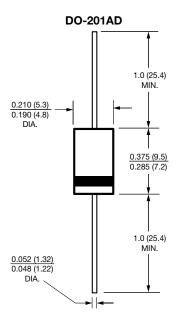


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PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

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