

GOOD-ARK Electronics

## 2.5A,50-1000V Fast Recovery Rectifiers

#### **Features**

- Low leakage current
- Low forward voltage drop
- Glass passivated chip junction
- For general purpose applications
- Moisture sensitivity: level 1, per J-STD-020
- For fast switching and low logic level applications
- High temperature soldering guaranteed: 260°C/10 seconds



## Applications

• Small battery charger, Power supplies

Maximum Ratings & Electrical Characteristics(TA=25°C unless otherwise noted)									
Parameter	Symbol	RGP25A	RGP25B	RGP25D	RGP25G	RGP25J	RGP25K	RGP25M	Unit
Maximum repetitive peak reverse voltage	Vrrm	50	100	200	400	600	800	1000	V
Maximum RMS voltage	Vrms	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	v
Maximum average forward rectified current	lf(AV)	2.5				A			
Peak forward surge current,8.3ms single half sine-wave superimposed on rated load per diode	IFSM	100					A		
Operating junction temperature range	TJ	-55 to +150			°C				
Storage temperature range	T <sub>STG</sub>	-55 to +150				°C			

Thermal-Mechanical Specifications (TA=25°C unless otherwise noted)							
Parameter	Symbol	Тур	Unit				
Thermal Resistance, Junction to Ambient	Reja	65	°C /W				
Thermal Resistance, Junction to Case	R <sub>θJC</sub>	26	°C /W				
Thermal Resistance, Junction to Lead	R <sub>θJL</sub>	20	°C /W				



# **RGP25A thru RGP25M** GOOD-ARK Electronics

Electrical Specifications (TA=25°C unless otherwise noted)													
Parameter	Symbol	Test Conditions	RGP25A	RGP25B	RGP25D	RGP25G	RGP25J	RGP25K	RGP25M	Unit			
Forward Drop Voltage	VF	I⊧=2.5A	1.30						v				
Reverse leakage I <sub>R</sub> current @V <sub>R</sub>	TJ =25℃	5							uA				
	IR	T」=125℃	100										
Typical junction capacitance	С	4.0 V 1 MHZ	60					pF					
Maximum reverse recovery time	trr	I <sub>F</sub> =0.5A,											
		I <sub>R</sub> =1.0A,		150 250				5	00	nS			
		I <sub>RR</sub> =0.25A											

Note:

1. Valid provided that leads at a distance of 9.5 mm from case are kept at ambient temperature.

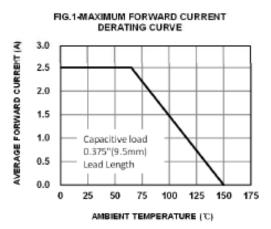


# RGP25A thru RGP25M

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### **Ratings and Characteristics Curves**

(TA = 25°C unless otherwise noted)



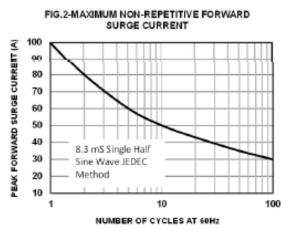
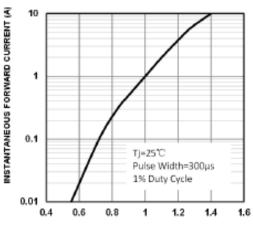


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



FORWARD VOLTAGE (V)

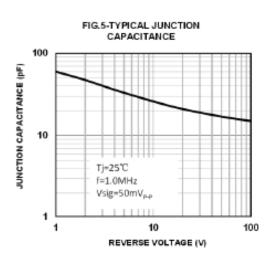
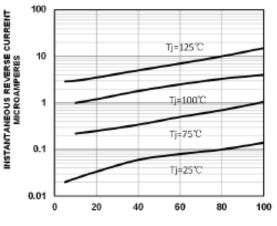


FIG.4-TYPICAL REVERSE CHARACTERISTICS



PERCENT OF RATED PEAK REVERSE VOLTAGE, %

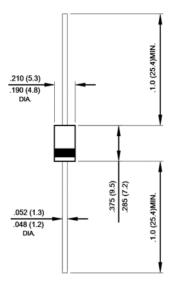


# **RGP25A thru RGP25M** GOOD-ARK Electronics

## Package Outline Dimensions

in inches (millimeters)

### **DO-201AD**



Dimensions in inches and (millimeters)

### **Revision History**

Document Version	Date of release	Description of changes
Rev.A	2021.06.01	Released Datasheet
Rev.B	2023.11.13	Modify document format



# RGP25A thru RGP25M

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