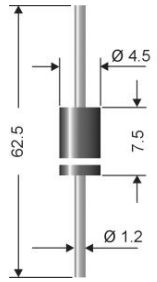
RGP 30K, RGP 30M



Axial lead diode

Fast silicon rectifier diodes

RGP 30K, RGP 30M

Forward Current: 3 A

Reverse Voltage: 800 to 1000 V

Features

- Max. solder temperature: 260°C
- Plastic material has UL classification 94V-0

Mechanical Data

- Plastic case DO-201
- Weight approx.: 1 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position : any
- Standard packaging: 1700 pieces per ammo

1) Valid, if leads are kept at ambient temperature at a distance of 10 mm from case

2) I_F = 3 A, T_j = 25

3) T_A = 25 °C

Type	Repetitive peak reverse voltage V_{RRM} V	Surge peak reverse voltage V_{RSM} V	Max. reverse recovery time I_F = 0,5 A, I_R = 1 A, I_{RR} = 0,25 A t_{rr} ns	Max. forward voltage V_F 2)
RGP 30K	800	800	500	1,2
RGP 30M	1000	1000	500	1,2

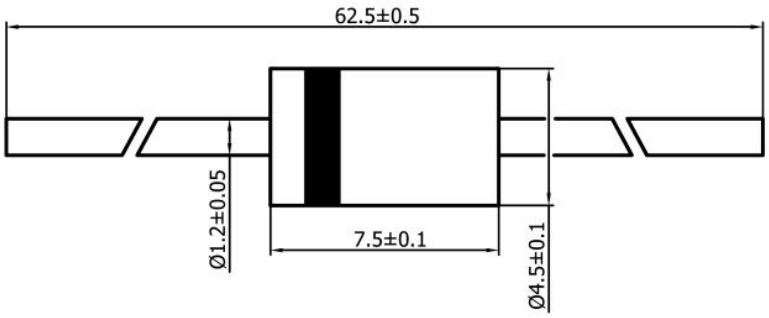
Absolute Maximum Ratings Tc = 25°C, unless otherwise specified

Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, T_A = 50 °C 1)	3	A
I_{FRM}	Repetitive peak forward current f > 15 Hz 1)	20	A
I_{FSM}	Peak forward surge current 50 Hz half sinus-wave 3)	100	A
i²t	Rating for fusing, t < 10 ms 3)	50	A²s
R_{thA}	Max. thermal resistance junction to ambient 1)	25	K/W
R_{thT}	Max. thermal resistance junction to terminals 1)	-	K/W
T_j	Operating junction temperature	-50...+150	°C
T_s	Storage temperature	-50...+175	°C

Characteristics Tc = 25°C, unless otherwise specified

Symbol	Conditions	Values	Units
I_R	Maximum leakage current, T_j = 25 °C; V_R = V_{RRM}	<10	µA
	T_j = °C; V_R = V_{RRM}		
C_J	Typical junction capacitance (at MHz and applied reverse voltage of V)	-	pF
Q_{rr}	Reverse recovery charge (U_R = V; I_F = A; dI_F/dt = A/ms)	-	µC
E_{RSM}	Non repetitive peak reverse avalanche energy (I_R = mA; T_j = °C; inductive load switched off)	-	mJ

Dimensions in mm



case: DO-201

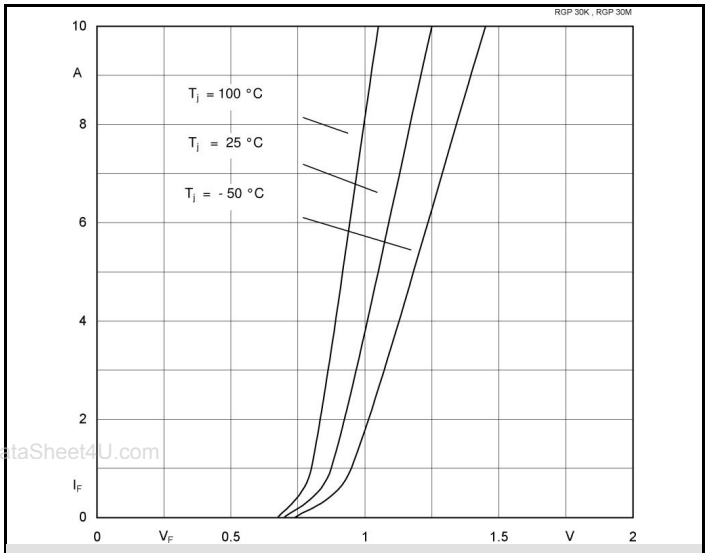


Fig. 1 Forward characteristics (typical values)

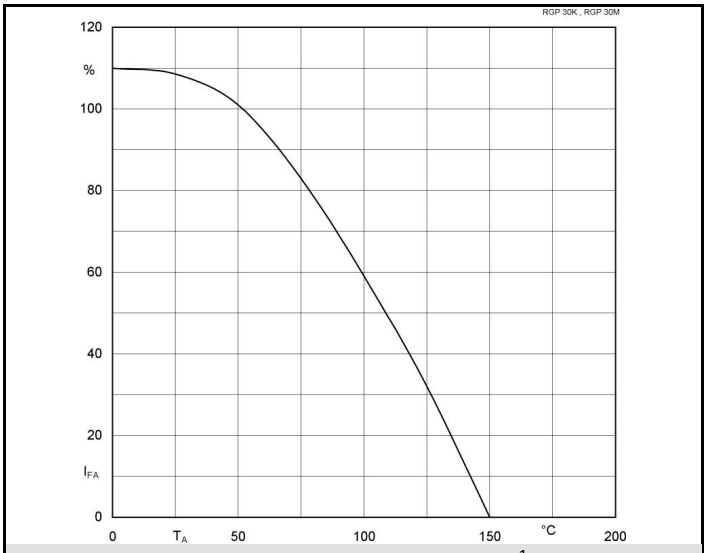


Fig. 2 Rated forward current vs. ambient temperature [1])

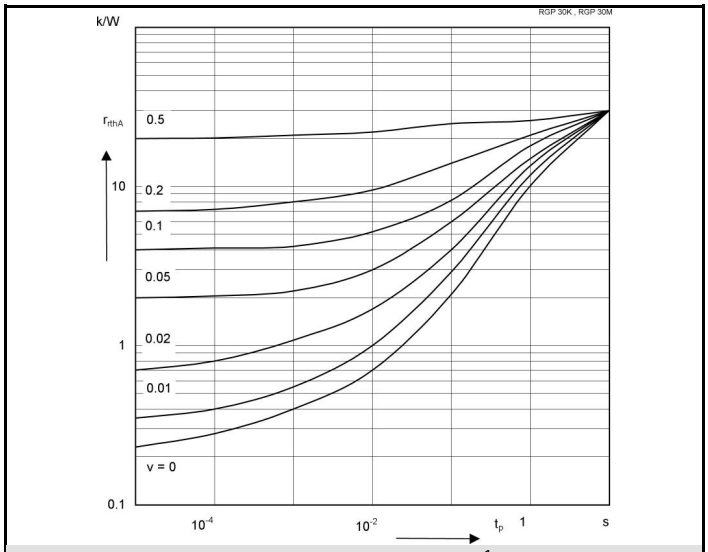


Fig. 3 Pulse thermal resistance vs. pulse duration [1])