

GP15A thru GP15M

Surface Mount Glass Passivated Rectifier Reverse Voltage 50-1000V Forward Current 1.5A

Features

- Plastic package has Underwrites laboratory Flammability Classification 94V-0
- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction
- Capable of meeting environmental standards of MIL-S-19500
- ◆ 1.5Ampere operation at T_A=55°C with no thermal runaway
- ◆ Typical I_R less than 0.1uA
- High temperature soldering guaranteed: 350°C/10seconds,
 0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension



Package: DO-204AC(DO-15)

Mechanical Data

- Case: JEDEC DO-204AC, molded plastic over glass body
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- ◆ Weight: 0.014 ounce, 0.395gram

Maximum Ratings & Electrical Characteristics

(T_A=25°C unless otherwise specified)

Parameter		Symbols	GP15A	GP15B	GP15D	GP15G	GP15J	GP15K	GP15M	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage		V_{RMS}	50	100	200	400	600	800	1000	V
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current										
0.375"(9.5mm) lead length at T _A =55°C		I _{F(AV)}	1.5							Α
Peak Forward Surge Current (8.3ms single half sine-			50.0							А
wave superimposed on rated load, JEDEC Method)		I _{FSM}								
Maximum Full Load Reverse Current,										
full cycle average, 0.375"(9.5mm) lead length T _A =55°C		I _{R(AV)}	I _{R(AV)} 100						uA	
Maximum Instantaneous Forward Voltage at 1.5A		V _F	1.1							V
Maximum DC Reverse Current	@T _A =25°C		5.0							uA
at rated DC Blocking Voltage	@T _A =150°C	I _R								
Typical Reverse Recovery Time										
at I _F =0.5A, I _R =1.0A, I _{RR} =0.25A		T_RR				1.0				us
Typical Junction Capacitance at 4.0V, 1MHz		C _J	15.0						pF	
Typical Thermal Resistance (Note 1)		R _{THJA}	45.0							
		R _{THJL}	20.0							°C/W
Operating Junction and Storage Temperature Range		T_J, T_{STG}	-55 to +150							°C

Notes: 1. Thermal resistance form junction to ambient and from junction to lead at 0.375"(9.5mm) lead length, P.C.B. mounted



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Ratings and Characteristics Curves

(T_A = 25°C unless otherwise noted)

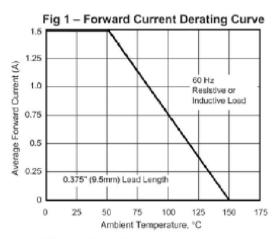


Fig 3 – Typical Instantaneous Forward Characteristics

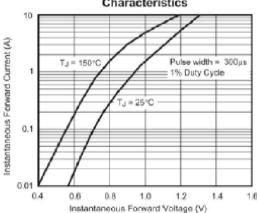


Fig 5 – Typical Junction Capacitance

T_J = 25_jC

f = 1.0 MHz

Vsig = 50mVp-p

1

1

10

Reverse Voltage (V)

Fig 2 – Maximum Non-repetitive Peak Forward Surge Current

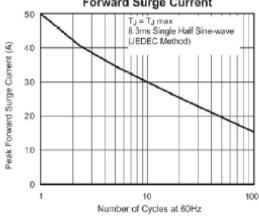


Fig 4 - Typical Reverse Characteristics

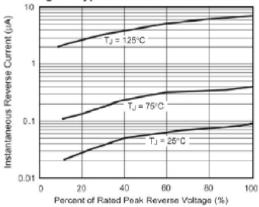
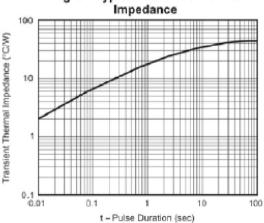


Fig. 6 – Typical Transient Thermal





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Package Outline Dimensions

in inches (millimeters)

DO-204AC(DO-15)

