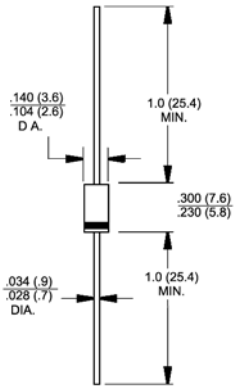
GP15A thru GP15M

Glass Passivated Junction Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 1.5 Amperes

Features

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

DO-204AC (DO-15)



Dimensions in inches and (millimeters)

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, 0.395 gram

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature 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	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T_A=55°C	$I_{F(AV)}$	1.5							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0							Amps
Maximum full load reverse current, full cycle average, 0.375" (9.5mm) lead length T_A=55°C	$I_{R(AV)}$	100							uA
Maximum instantaneous forward voltage at 1.5A	V_F	1.1							Volts
Maximum DC reverse current @T_A=25°C at rated DC blocking voltage @T_A=150°C	I_R	5.0 200							uA
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)	$R_{\theta JA}$ $R_{\theta JL}$	45.0 20.0							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							°C

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

RATINGS AND CHARACTERISTIC CURVES

(T_A = 25°C unless otherwise noted)

Fig 1 – Forward Current Derating Curve

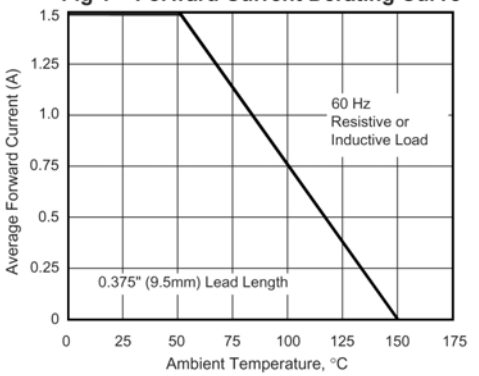


Fig 2 – Maximum Non-repetitive Peak Forward Surge Current

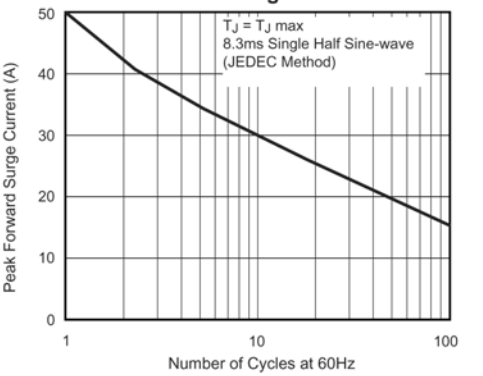


Fig 3 – Typical Instantaneous Forward Characteristics

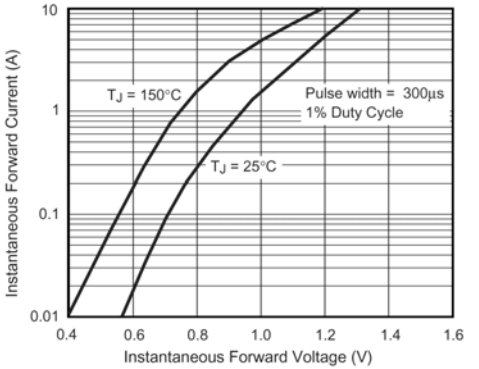


Fig 4 – Typical Reverse Characteristics

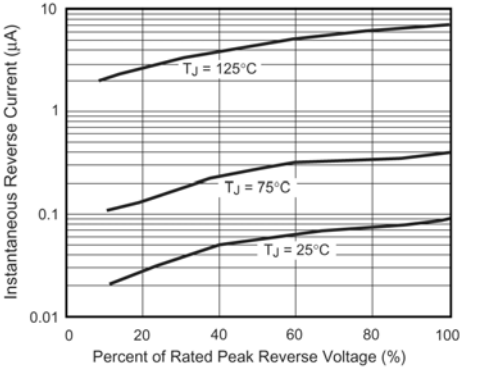


Fig 5 – Typical Junction Capacitance

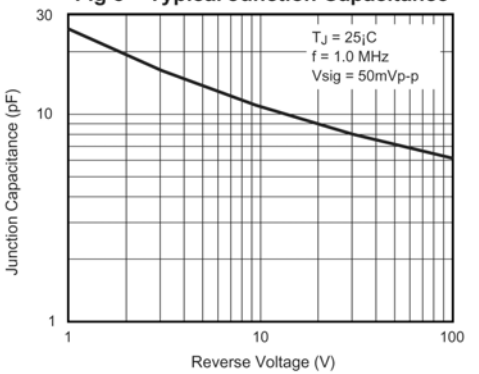


Fig. 6 – Typical Transient Thermal Impedance