

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 $T_A=55^{\circ}\text{C}$ with no thermal runaway
- ♦ Typical I_R less than 0.1uA
- ♦ High temperature soldering guaranteed: $350^{\circ}\text{C}/10\text{seconds}$, 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

($T_A=25^{\circ}\text{C}$ 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 $T_A=55^{\circ}\text{C}$		$I_{F(AV)}$	1.5							A
Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load, JEDEC Method)		I_{FSM}	50.0							A
Maximum Full Load Reverse Current, full cycle average, 0.375"(9.5mm) lead length $T_A=55^{\circ}\text{C}$		$I_{R(AV)}$	100							uA
Maximum Instantaneous Forward Voltage at 1.5A		V_F	1.1							V
Maximum DC Reverse Current	@ $T_A=25^{\circ}\text{C}$	I_R	5.0							uA
at rated DC Blocking Voltage	@ $T_A=150^{\circ}\text{C}$		200							
Typical Reverse Recovery Time at $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$		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							$^{\circ}\text{C/W}$
		R_{THJL}	20.0							
Operating Junction and Storage Temperature Range		T_J , T_{STG}	-55 to +150							$^{\circ}\text{C}$

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 Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig 1 – Forward Current Derating Curve

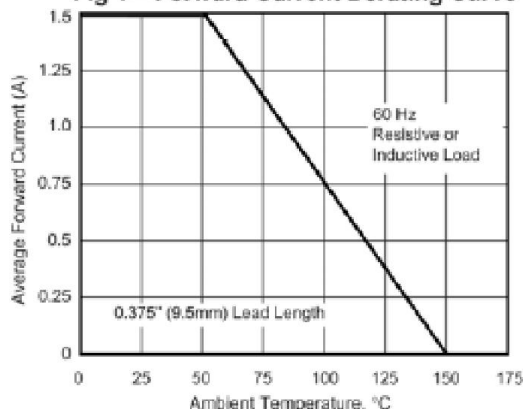


Fig 2 – Maximum Non-repetitive Peak Forward Surge Current

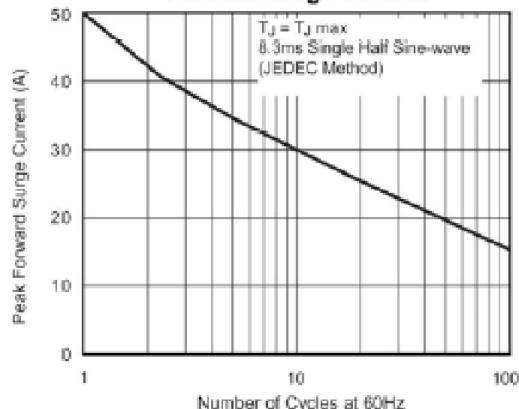


Fig 3 – Typical Instantaneous Forward Characteristics

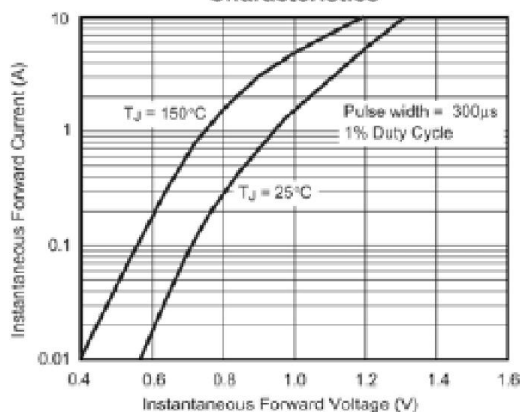


Fig 4 – Typical Reverse Characteristics

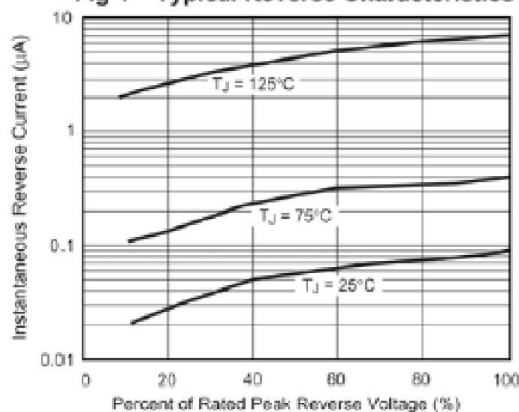


Fig 5 – Typical Junction Capacitance

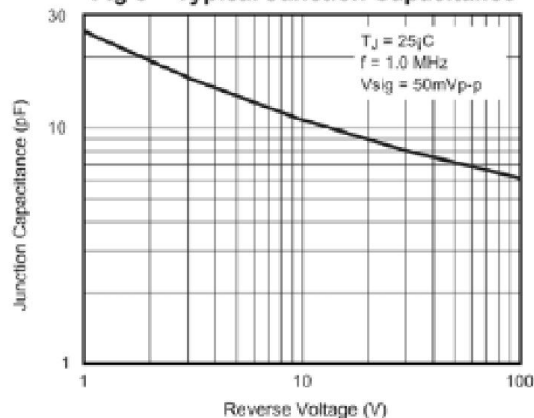
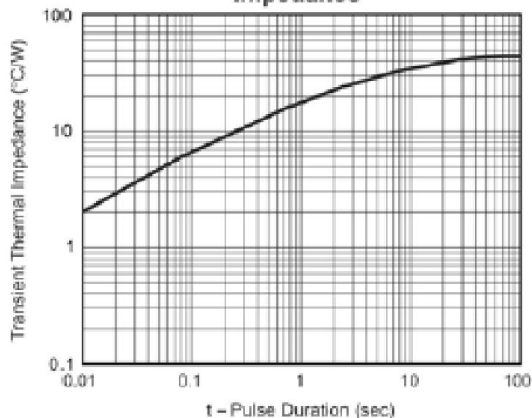


Fig. 6 – Typical Transient Thermal Impedance



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Package Outline Dimensions

in inches (millimeters)

DO-204AC(DO-15)

