

GP10A thru GP10Y

Glass Passivated Junction Rectifier
 Reverse Voltage 50-1600V Forward Current 1.0A

Features

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ High temperature metallurgically bonded construction
- ◆ Glass passivated cavity-free junction
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ 1.0 Ampere operation at TA=75°C and 55°C with no thermal runaway
- ◆ Typical IR less than 0.1μA
- ◆ High temperature soldering guaranteed:
350°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension
- ◆ For AEC-Q101 Qualified, add the prefix "A" to part number
- ◆ Do not bend lead at a point closer than min. 3mm to the body



Package: DO-204AL(DO-41)

Mechanical Data

- ◆ **Case:** JEDEC DO-204AL 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:** 0.012 ounce, 0.3 gram

Maximum Ratings & Electrical Characteristics

(T_A=25°C unless otherwise specified)

Parameter	Symbols	GP 10A	GP 10B	GP 10D	GP 10G	GP 10J	GP 10K	GP 10M	GP 10N	GP 10Q	GP 10T	GP 10V	GP 10W	GP 10Y	Units		
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	1100	1200	1300	1400	1500	1600	Volts		
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	770	840	910	980	1050	1120	Volts		
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	1100	1200	1300	1400	1500	1600	Volts		
Maximum average forward rectified current 0.375"(9.5mm) lead length(See Fig. 1)	I _{F(AV)}	1.0													A		
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	I _{FSM}	30.0						25.0						A			
Maximum full load reverse current, full cycle average, 0.375"(9.5mm) lead length T _A =75°C	I _{R(AV)}	30.0													μA		
Maximum instantaneous forward voltage at 1.0A	V _F	1.1						1.2			1.3					V	
Maximum DC reverse current at rated DC blocking voltage	I _R	@ TA=25°C													μA		
		@ TA=125°C															
Typical reverse recovery time at I _F =0.5A, I _R =1.0A, I _{RR} =0.25A	T _{RR}	1.0													μS		
Typical junction capacitance at 4.0V, 1MHz	C _J	8.0						7.0			5.0					pF	
Typical thermal resistance (Note 1)	R _{THJA}	55.0													°C/W		
Operating junction temperature range	T _J	-55 to +150						-55 to +125									°C
Storage temperature range	T _{STG}	-55 to +150													°C		

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

Ratings and Characteristics Curves

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

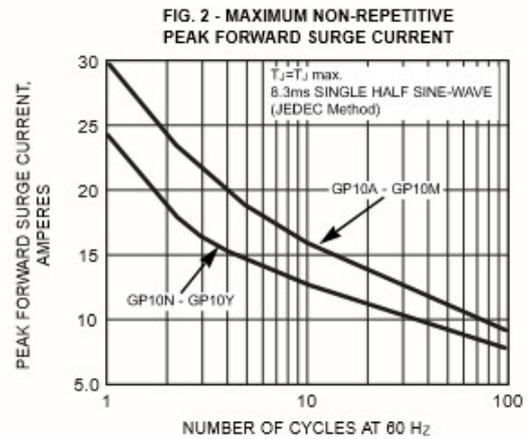
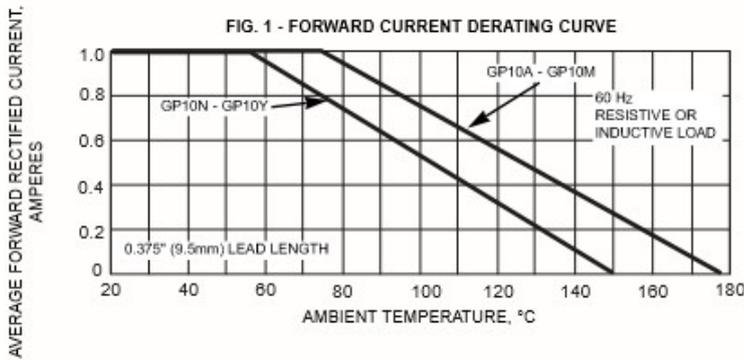


Fig 3. – Typical Instantaneous Forward Characteristics

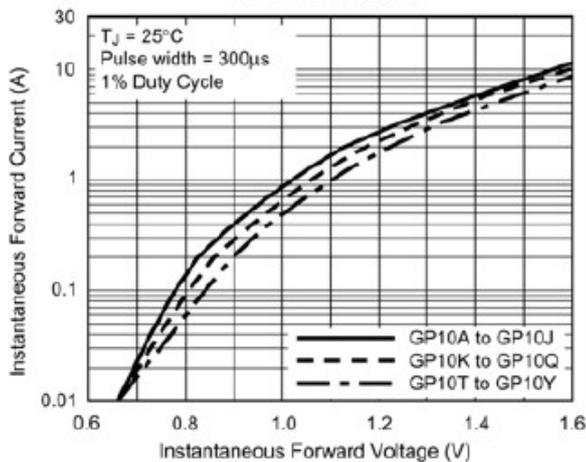


Fig 4. – Typical Reverse Characteristics

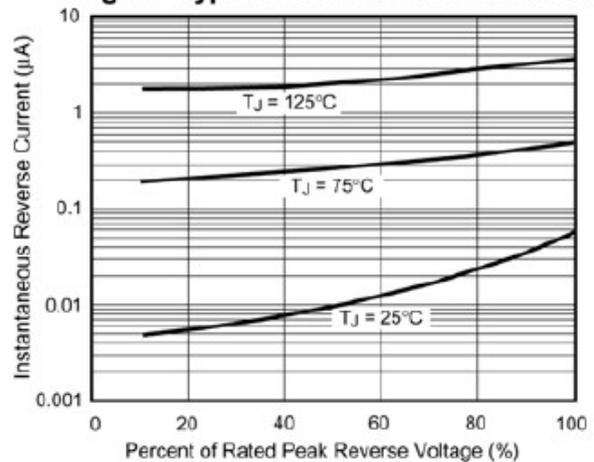
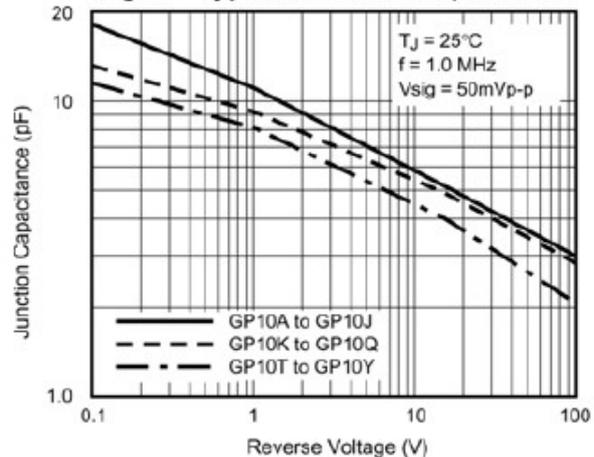


Fig 5. – Maximum Repetitive Peak Reverse Voltage, V_{RRM}

GP10A.....	50V
GP10B.....	100V
GP10D.....	200V
GP10G.....	400V
GP10J.....	600V
GP10K.....	800V
GP10M.....	1000V
GP10N.....	1100V
GP10Q.....	1200V
GP10T.....	1300V
GP10V.....	1400V
GP10W.....	1500V
GP10Y.....	1600V

Fig 6. – Typical Junction Capacitance



Package Outline Dimensions in inches (millimeters)

