

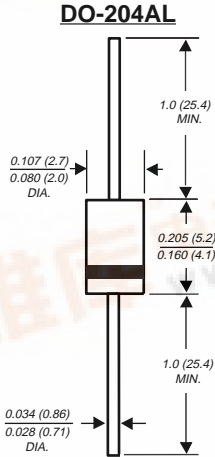
GP10A THRU GP10Y

GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 50 to 1600 Volts

Forward Current - 1.0 Ampere

PATENTED*



NOTE: Lead diameter is 0.026 (0.66) for suffix "E" part numbers
0.023 (0.58)

Dimensions in inches and (millimeters)
* Glass-plastic encapsulation is covered by
Patent No. 3,996,602 and brazed-lead assembly by Patent No. 3,930,306



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 $T_A=75^\circ\text{C}$ and 55°C with no thermal runaway
- ◆ Typical I_R less than $0.1\mu\text{A}$
- ◆ High temperature soldering guaranteed: $350^\circ\text{C}/10$ seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



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 AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	A	B	D	G	J	K	M	N	Q	T	V	W	Y	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50 to 1600 Volts (SEE FIG. 5)													Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length (SEE FIG. 1)	$I_{(AV)}$	1.0													Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0						25.0						Amps	
Maximum instantaneous forward voltage at 1.0A	V_F	1.1			1.2			1.3			Volts				
Maximum full load reverse current, full cycle average, 0.375" (9.5mm) lead lengths at $T_A=75^\circ\text{C}$	$I_{R(AV)}$	30.0													μA
Maximum DC reverse current at rated DC blocking voltage	I_R	$T_A=25^\circ\text{C}$ 5.0						$T_A=125^\circ\text{C}$ 50.0						μA	
Typical reverse recovery time (NOTE 1)	t_{rr}	2.0													μs
Typical junction capacitance (NOTE 2)	C_J	8.0				7.0				5.0				pF	
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	55.0													$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175						-65 to +150						$^\circ\text{C}$	

NOTES:

- (1) Reverse recovery test condition: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$
Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead lengths, P.C.B. mounted



RATINGS AND CHARACTERISTIC CURVES GP10A THRU GP10Y

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

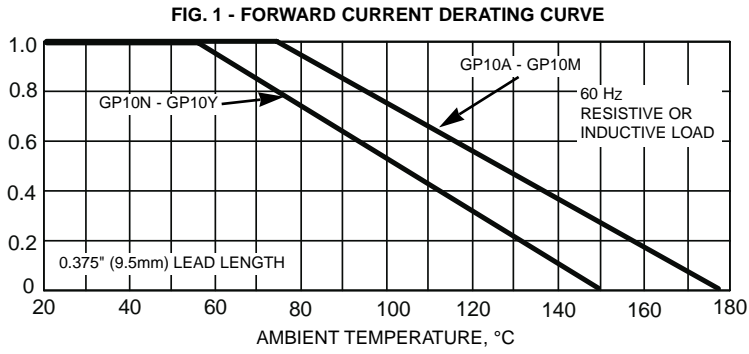


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

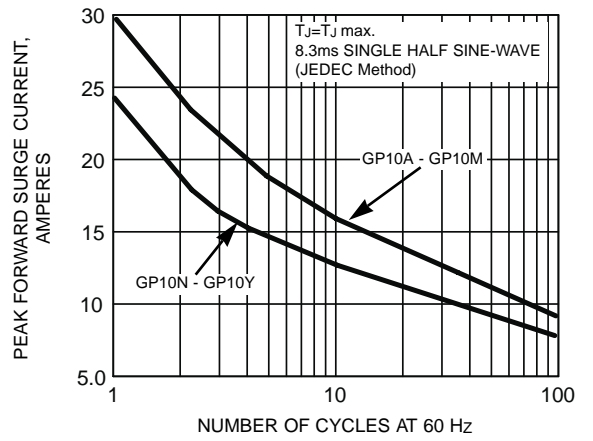


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

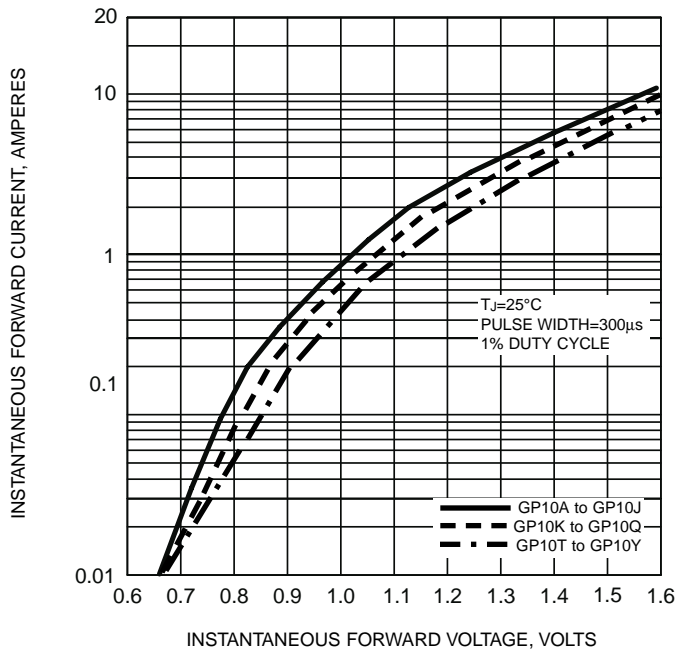


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

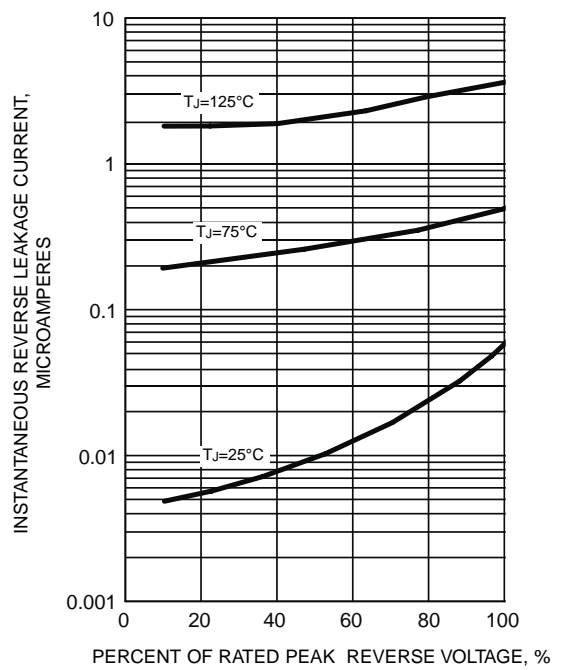


FIG. 5 - MAXIMUM REPETITIVE PEAK REVERSE VOLTAGE, VRRM

GP10A	.....	.50V
GP10B	.....	.100V
GP10D	.....	.200V
GP10G	.....	.400V
GP10J	.....	.600V
GP10K	.....	.800V
GP10M	.....	1.000V
GP10N	.....	1.100V
GP10Q	.....	1.200V
GP10T	.....	1.300V
GP10V	.....	1.400V
GP10W	.....	1.500V
GP10Y	.....	1.600V

FIG. 6 - TYPICAL JUNCTION CAPACITANCE

