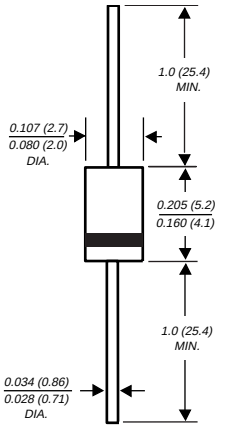
GP10A THRU GP10Y

GLASS PASSIVATED JUNCTION RECTIFIER

***Reverse Voltage** - 50 to 1600 Volts* ***Forward Current** - 1.0 Ampere*

PATENTED*

DO-204AL



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

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*

SUPERECTIFIER®

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°C and 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

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°C	$I_{R(AV)}$	30.0													µA
Maximum DC reverse current at rated DC blocking voltage T_A=25°C / T_A=125°C	I_R	5.0 / 50.0													µA
Typical reverse recovery time (NOTE 1)	trr	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													°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175							-65 to +150						°C

NOTES:
(1) Reverse recovery test condition: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
(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

GENERAL SEMICONDUCTOR®

RATINGS AND CHARACTERISTIC CURVES GP10A THRU GP10Y

FIG. 1 - FORWARD CURRENT DERATING CURVE

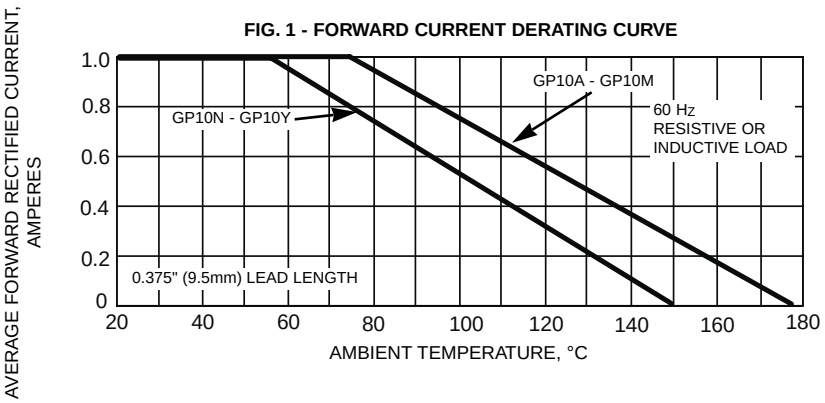


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

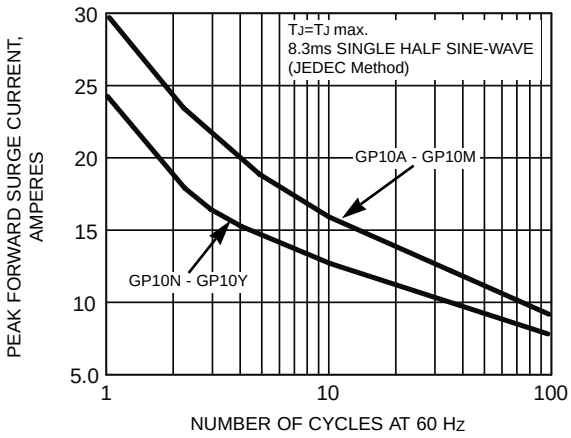


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

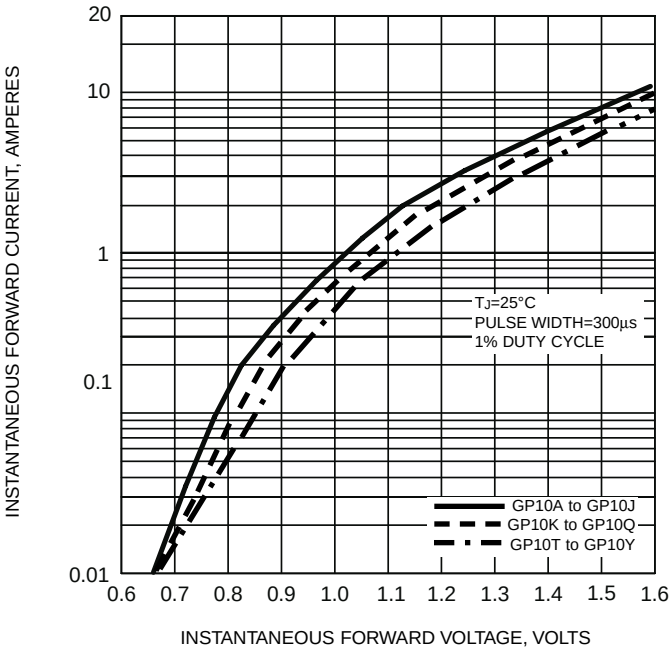


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

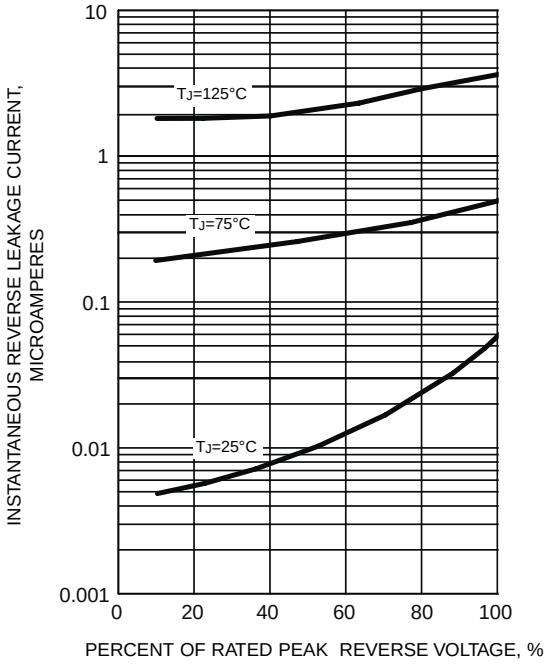
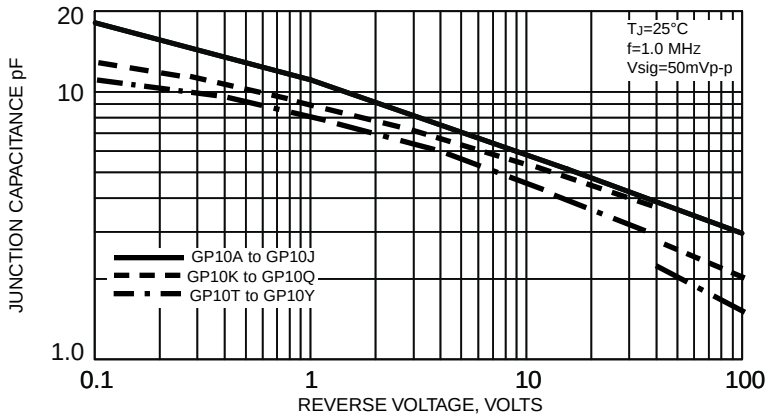


FIG. 5 - MAXIMUM REPETITIVE PEAK REVERSE VOLTAGE, V_{RRM}

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



GENERAL SEMICONDUCTOR®

littlediode
COMPONENTS FOR ALL

Littlediode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.