



GP02-20

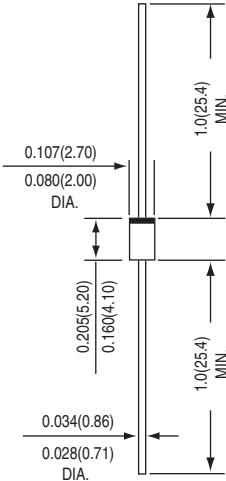
HIGH VOLTAGE SINTERED GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 2000 Volts

Forward Current - 1.0 Ampere

PATENTED

DO-204AL



*Dimensions in inches and (millimeters)

SUPEREX II™



FEATURES

- * GPRC (Glass Passivated Rectifier Chip) inside
- * 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
- * High temperature soldering guaranteed: $260^{\circ}\text{C}/10$ seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3 kg) tension
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

MECHANICAL DATA

Case : JEDEC DO-204AL molded plastic over glass body

Terminals : Tin Plated, solderable per MIL-STD-750, Method 2026

Polarity : Color band denotes cathode end

Weight : 0.012 ounces , 0.3 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.	SYMBOLS	GP02-20	UNITS
Maximum repetitive peak reverse voltage	VRRM	2000	Volts
Maximum RMS voltage	VRMS	1400	Volts
Maximum DC blocking voltage	VDC	2000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length (SEE FIG.1)	I(AV)	1.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30	Amps
Maximum instantaneous forward voltage at 1.0 A	VF	2.0	Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^{\circ}\text{C}$ $T_A=100^{\circ}\text{C}$	IR	5 50	μA
Typical reverse recovery time (NOTE 1)	Trr	2.0	μS
Typical junction capacitance (NOTE 2)	CJ	3.0	pF
Typical thermal resistance (NOTE 3)	R θ JA	130	$^{\circ}\text{C} / \text{W}$
Operating junction and storage temperature range	TJ,TSTG	-65 to +175	$^{\circ}\text{C}$

NOTES : (1) Revers recovery test conditions : $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$

(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 OF GP02-20

FIG.1 - FORWARD CURRENT DERATING CURVE

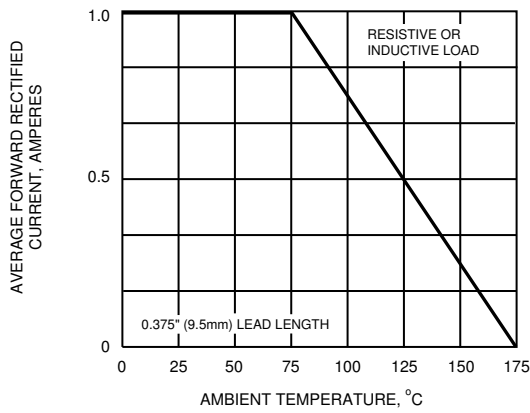


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

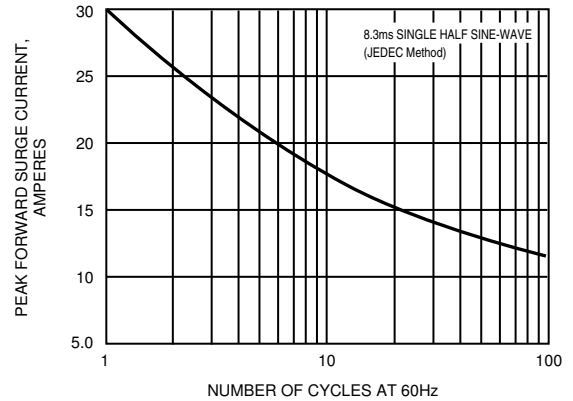


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

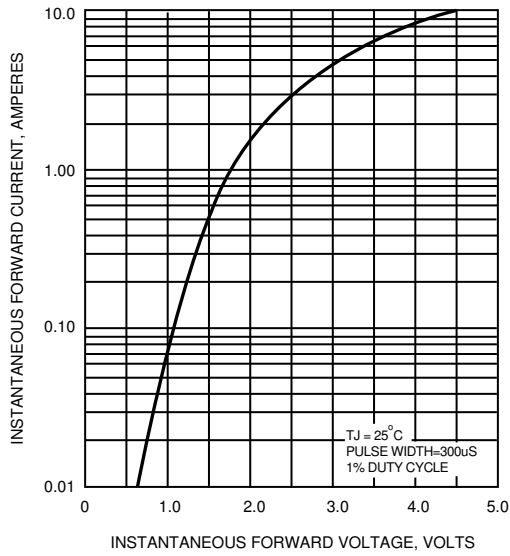


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

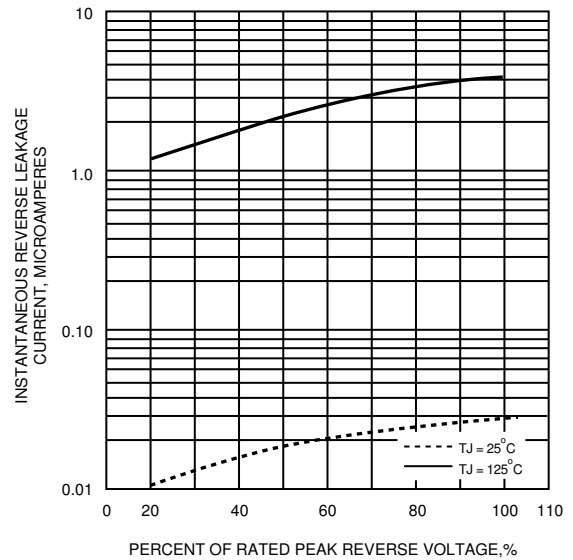


FIG.5 - TYPICAL JUNCTION CAPACITANCE

