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GP02-12 THRU GP02-20

High Voltage 1.5A Sintered Glass Passivated Rectifier

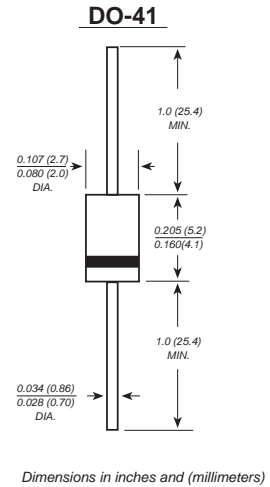
VOLTAGE RANGE 1200 to 2000 Volts
CURRENT 1.5 Ampere

FEATURES

- GPRC (Glass Passivated Rectifier Chip) inside
- Glass passivated cavity - free junction
- Capable of meeting environmental standards of MIL-S-19500
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering guaranteed:
260°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension
- RoHS Compliance

MECHANICAL DATA

- Case : JEDEC DO-41 molded plastic over glass body
- Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Weight : 0.012 ounce, 0.33 grams (DO-41)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified.
- Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

	SYMBOLS	GP02-12	GP02-15	GP02-18	GP02-20	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	1200	1500	1800	2000	VOLTS
Maximum RMS voltage	V_{RMS}	840	1050	1260	1400	VOLTS
Maximum DC blocking voltage	V_{DC}	1200	1500	1800	2000	VOLTS
Maximum average forward rectified current 0.375" (9.5mm) lead length (see fig.1)	$I_{(AV)}$	1.5				A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0				Amps
Maximum instantaneous forward voltage at 1.5 A	V_F	2.0				Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	5.0 50.0				μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	2.0				μs
Typical junction capacitance (NOTE 2)	C_J	3.0				pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	50.0				$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175				$^\circ\text{C}$

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

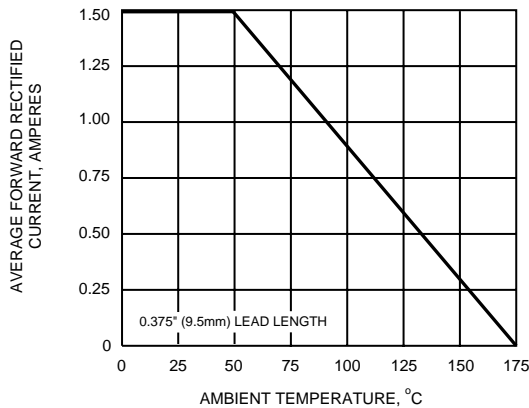


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

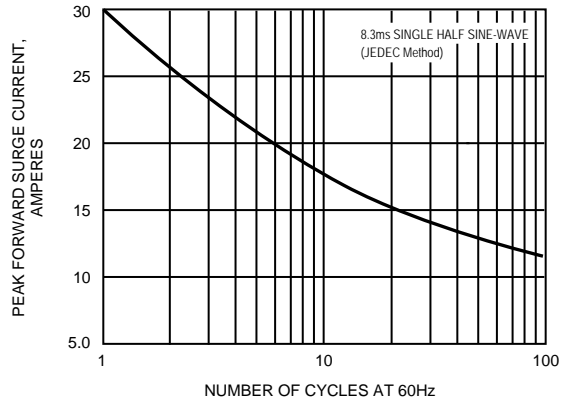


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

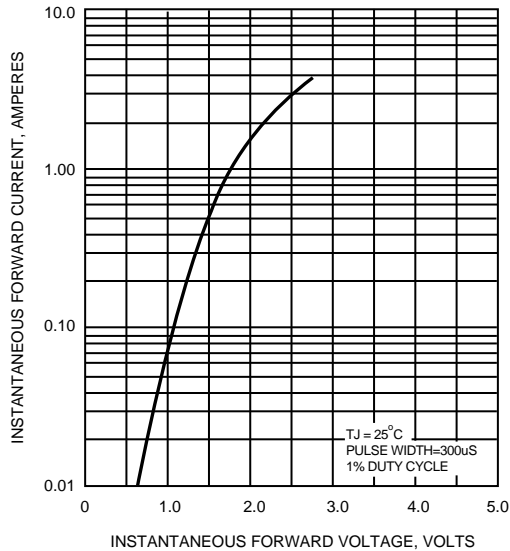


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

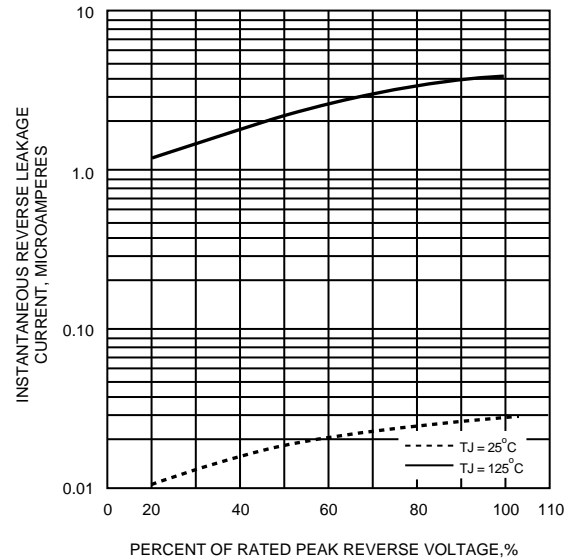


FIG.5 - TYPICAL JUNCTION CAPACITANCE

