

GP10A - GP10M

GLASS PASSIVATED JUNCTION SILICON RECTIFIERS

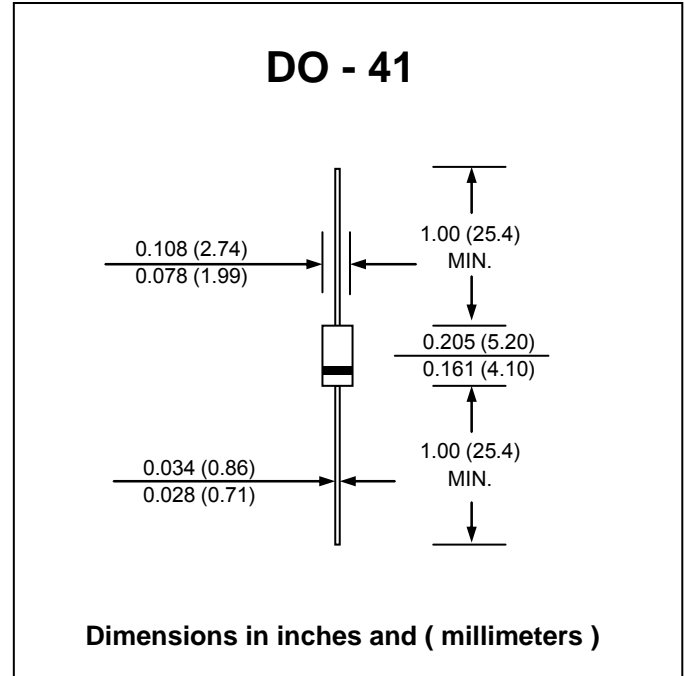
PRV : 50 - 1000 Volts
Io : 1.0 Ampere

FEATURES :

- * Glass passivated junction chip
- * High current capability
- * High reliability
- * Low reverse current
- * **Pb Free / RoHS Compliant**

MECHANICAL DATA :

- * Case : DO-41 Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.34 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

RATING	SYMBOL	GP10A	GP10B	GP10D	GP10G	GP10J	GP10K	GP10M	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length $T_a = 75\text{ }^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Maximum Forward Voltage at $I_F = 1.0\text{ Amp.}$	V_F	1.1					1.2		V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$	I_R	5.0							μA
	$I_{R(H)}$	50							μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	3.0							μs
Typical Junction Capacitance (Note2)	C_J	8.0					7.0		pF
Typical Thermal Resistance (Note3)	$R_{\theta JA}$	55							$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	- 65 to + 175							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 175							$^\circ\text{C}$

- Notes :** (1) Reverse 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 VDC
 (3) Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.

RATING AND CHARACTERISTIC CURVES (GP10A - GP10M)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

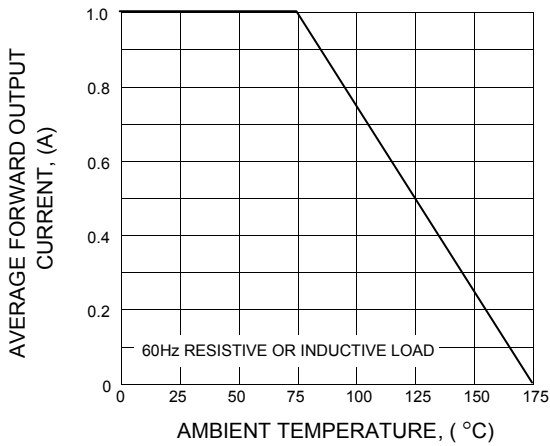


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

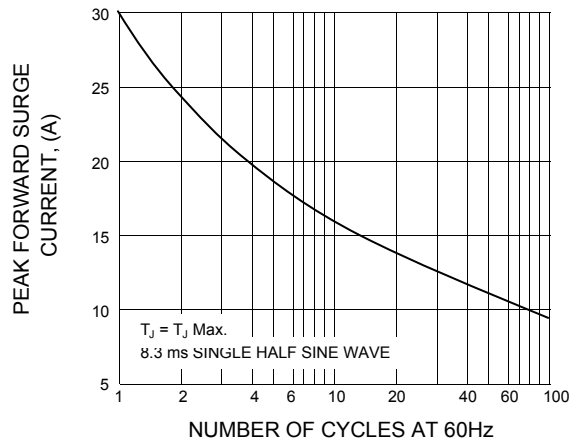


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

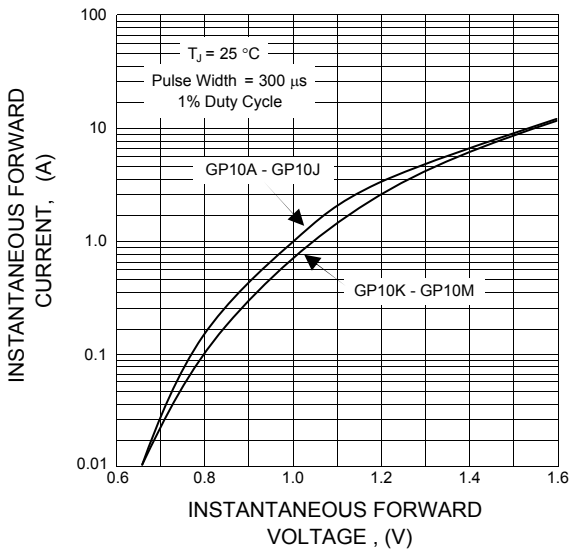


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

