

# GP10N - GP10Y

**PRV : 1100 - 1600 Volts**  
**Io : 1.0 Ampere**

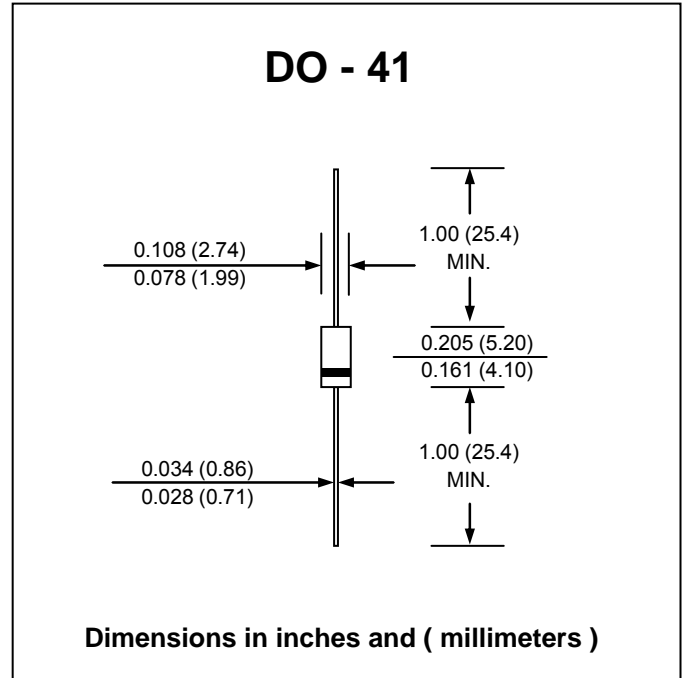
### FEATURES :

- \* 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

## GLASS PASSIVATED JUNCTION SILICON RECTIFIERS



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

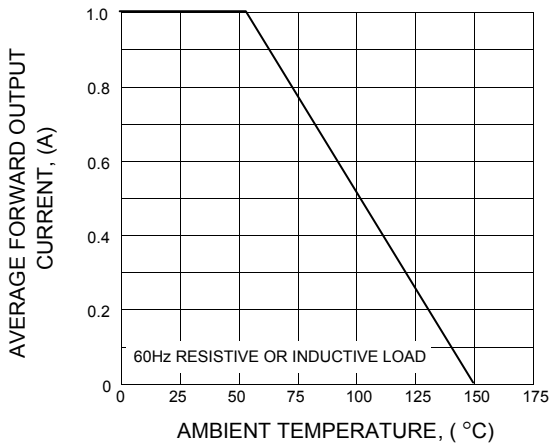
Rating at 25 °C ambient temperature unless otherwise specified  
 Single phase, half wave, 60 Hz, resistive or inductive load  
 For capacitive load, derate current by 20%

RATING	SYMBOL	GP10N	GP10Q	GP10T	GP10V	GP10W	GP10Y	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	1100	1200	1300	1400	1500	1600	V
Maximum RMS Voltage	$V_{RMS}$	770	840	910	980	1050	1120	V
Maximum DC Blocking Voltage	$V_{DC}$	1100	1200	1300	1400	1500	1600	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length $T_a = 55\text{ }^\circ\text{C}$	$I_{F(AV)}$	1.0						A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	25						A
Maximum Forward Voltage at $I_F = 1.0\text{ Amp.}$	$V_F$	1.2	1.3				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						$\mu\text{A}$
	$I_{R(H)}$	50						$\mu\text{A}$
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	3.0						$\mu\text{s}$
Typical Junction Capacitance (Note2)	$C_J$	7.0	5.0				pF	
Typical Thermal Resistance (Note3)	$R_{\theta JA}$	55						$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_J$	- 65 to + 150						$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 65 to + 150						$^\circ\text{C}$

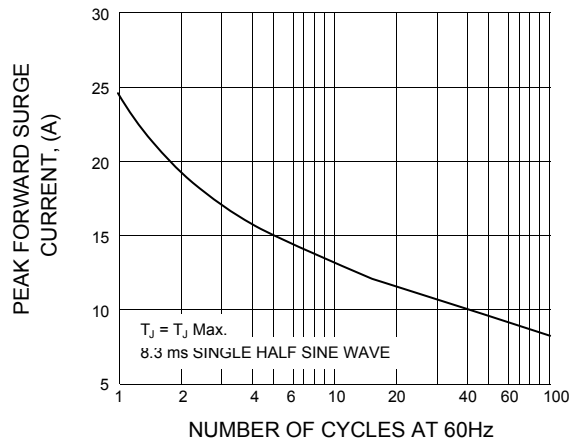
- Notes :** (1) Reverse Recovery Test Conditions  $I_F = 0.5\text{ A}$ ,  $I_R = 1.0\text{ A}$ ,  $I_{rr} = 0.25\text{ A}$ .  
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 VDC  
 (3) Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.

**RATING AND CHARACTERISTIC CURVES ( GP10N - GP10Y )**

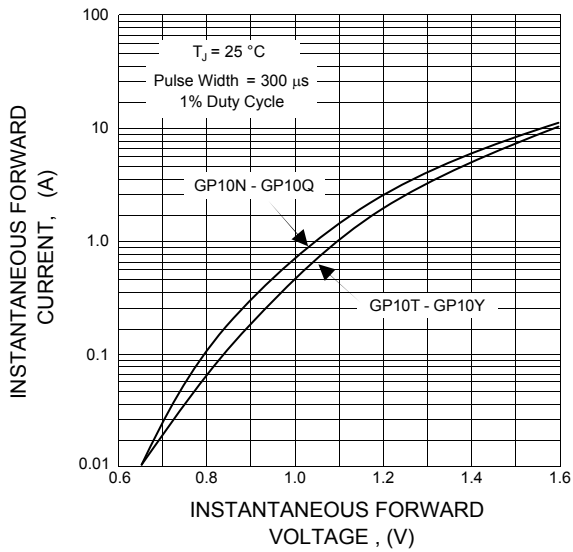
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

