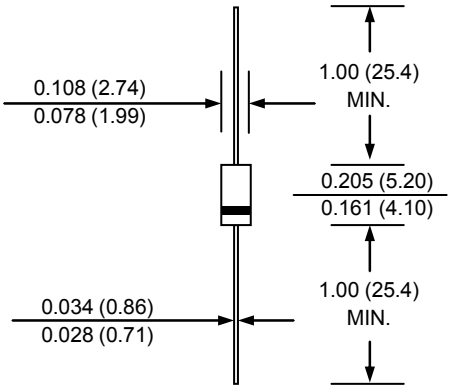
GP10N - GP10Y

GLASS PASSIVATED JUNCTION SILICON RECTIFIERS

PRV : 1100 - 1600 Volts
Io : 1.0 Ampere

DO - 41



Dimensions in inches and (millimeters)

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	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 Ta = 55 °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 Amp.	V_F	1.2		1.3				V
Maximum DC Reverse Current Ta = 25 °C	I_R	5.0						µA
at rated DC Blocking Voltage Ta = 125 °C	$I_{R(H)}$	50						µA
Maximum Reverse Recovery Time (Note 1)	Trr	3.0						µs
Typical Junction Capacitance (Note2)	C_J	7.0		5.0				pF
Typical Thermal Resistance (Note3)	$R_{\theta JA}$	55						°C/W
Operating Junction Temperature Range	T_J	- 65 to + 150						°C
Storage Temperature Range	T_{STG}	- 65 to + 150						°C

Notes : (1) Reverse Recovery Test Conditions I_F = 0.5 A, I_R = 1.0 A, Irr = 0.25 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

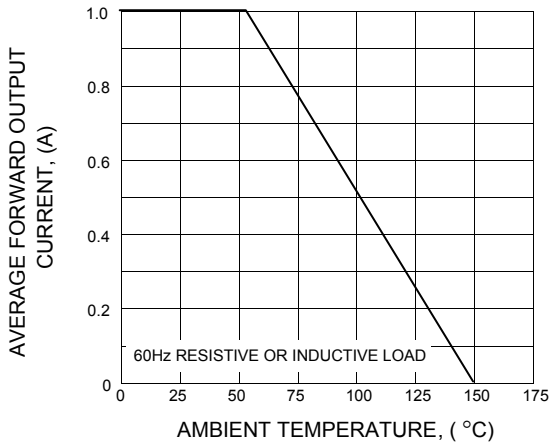


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

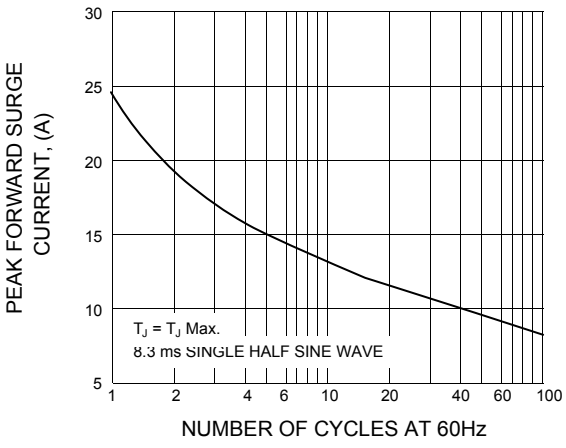


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

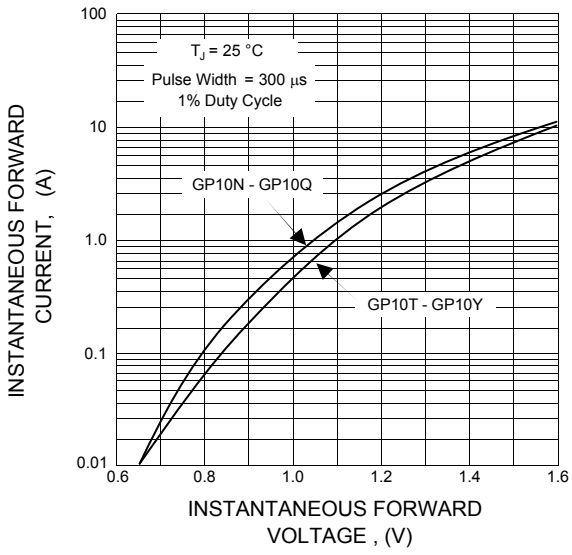


FIG.4 - TYPICAL REVERSE CHARACTERISTICS