GP02-20 THRU GP02-40

MINIATURE HIGH VOLTAGE GLASS PASSIVATED JUNCTION PLASTIC RECTIFIER

Reverse Voltage: 2000 to 4000 V
Forward Current: 0.25 A

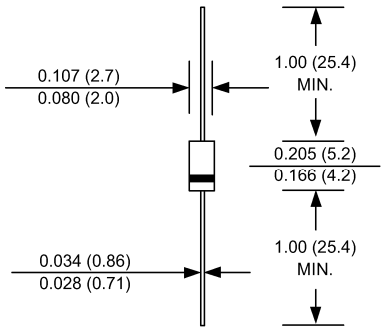
Features

- Glass passivated junction
- High current capability
- High surge current capability
- High reliability
- Low reverse current
- Low forward voltage drop

Mechanical Data

- Case: DO-41 Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial lead solderable per MIL-STD-202 Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any

DO - 41



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings 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%.

Parameter	Symbols	GP02-20	GP02-25	GP02-30	GP02-35	GP02-40	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	2000	2500	3000	3500	4000	V
Maximum RMS Voltage	V_{RMS}	1400	1750	2100	2450	2800	V
Maximum DC Blocking Voltage	V_{DC}	2000	2500	3000	3500	4000	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length T_a = 55 °C	$I_{F(AV)}$	0.25					A
Peak Forward Surge Current 8.3 ms. Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	15					A
Maximum Forward Voltage at 1A	V_F	3					V
Maximum Reverse Current at Rated DC Blocking Voltage at T_a = 25 °C at T_a = 100 °C	I_R	5 50					μA
Maximium Reverse Recovery Time [1]	t_{rr}	2					μs
Typical Junction Capacitance [2]	C_J	3					pF
Typical Thermal Resistance [3]	$R_{\theta JA}$	130					°C/W
Junction Temperature Range	T_j	- 65 to + 175					°C
Storage Temperature Range	T_{stg}	- 65 to + 175					°C

[1] Reverse recovery test conditions: I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A

[2] Measured at 1 MHz and applied reverse voltage of 4 VDC

[3] Thermal resistance from junction to ambient at 0.375"(9.5mm) Lead Lengths, P.C. board mounted.

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FIG. 1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

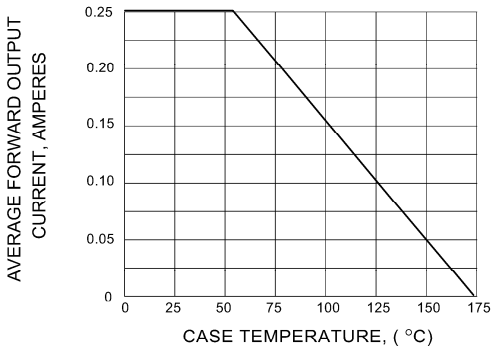

FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

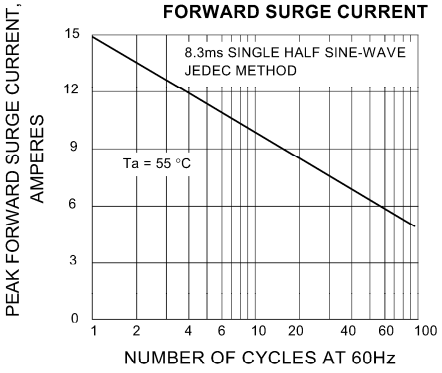

FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

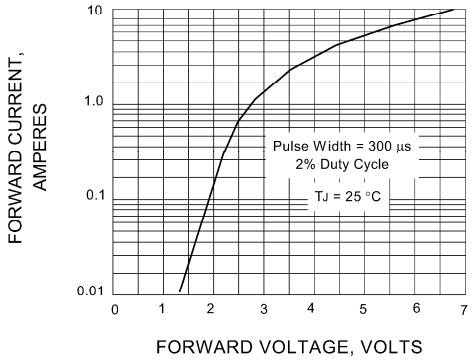

FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

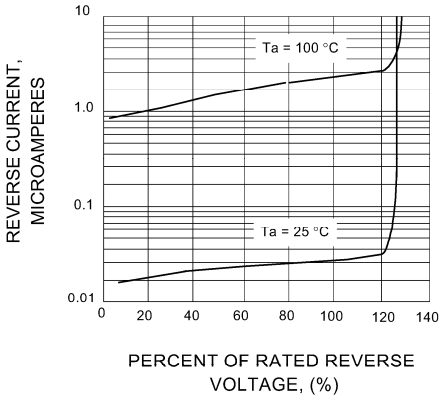

FIG 5 . - TYPICAL JUNCTION CAPACITANCE