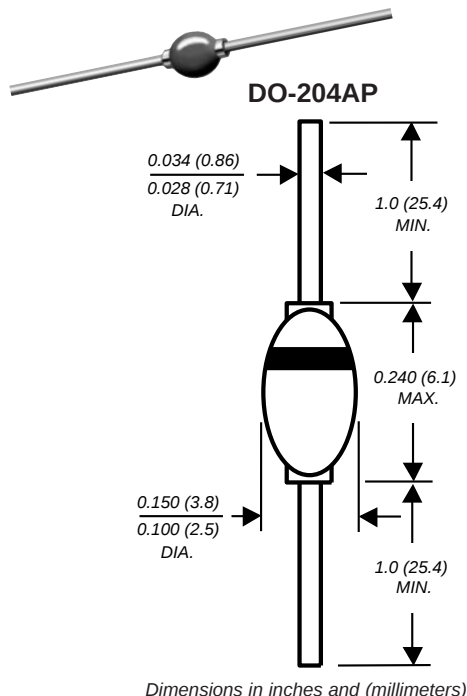




Glass Passivated Ultrafast Rectifier



Reverse Voltage 50 to 200V
Forward Current 2.5A

Features

- High temperature metallurgically bonded construction
- Glass passivated cavity-free junction
- Superfast recovery time for high efficiency
- Ultrafast recovery time for high efficiency
- Low forward voltage, high current capability
- Capable of meeting environmental standards of MIL-S-19500
- Hermetically sealed package
- High surge capability
- High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

Mechanical Data

Case: JEDEC DO-204AP solid glass body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.02 ounce, 0.56 gram

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	GI1101	GI1102	GI1103	GI1104	Units
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	150	200	V
Maximum RMS voltage	V _{RMS}	35	70	105	140	V
Maximum DC blocking voltage	V _{DC}	50	100	150	200	V
Maximum average forward rectified current at 0.375" (9.5mm) lead length (See Fig. 1)	I _{F(AV)}	2.5			2.0	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) at rated T _L	I _{FSM}	50				A
Typical thermal resistance ^(1, 2)	-junction to ambient	65				°C/W
	-junction to lead	20				
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +175			-65 to 150	°C

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	GI1101	GI1102	GI1103	GI1104	Units
Maximum instantaneous forward voltage at 2.0A	V _F	0.95			1.25 (Note 3)	V
Maximum DC reverse current T _A = 25°C at rated DC blocking voltage T _A =100°C	I _R	2.0 50			10 200	μA
Maximum reverse recovery time I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	25			50	ns
Typical junction capacitance at 4V, 1MHz	C _J	45				pF

Notes:

(1) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length and mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads

(2) Thermal resistance from junction to lead at 0.375" (9.5mm) lead length with both leads attached to heatsinks

(3) Tested at I_F = 1.0 A

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 — Maximum Forward Current Derating Curve

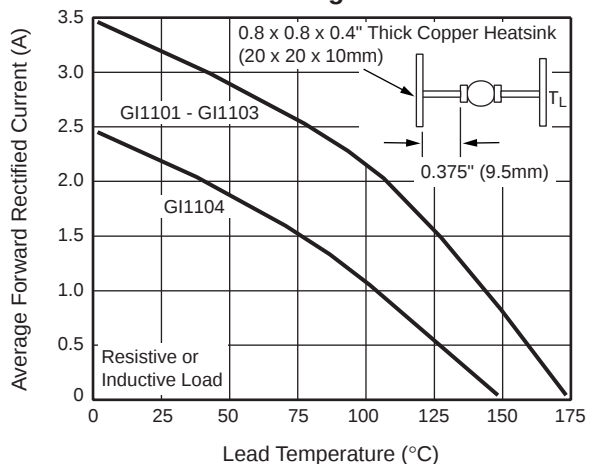


Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current

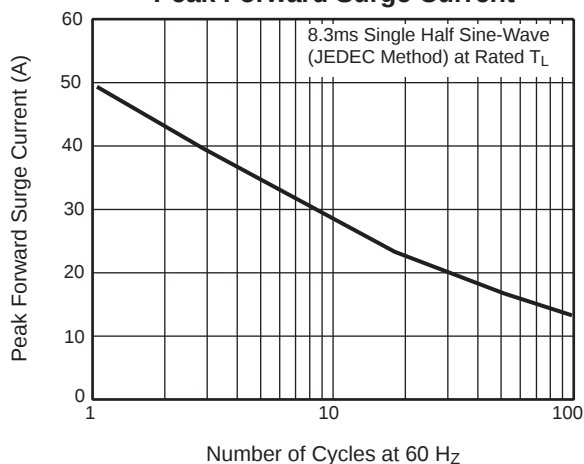


Fig. 3 — Typical Instantaneous Forward Characteristics

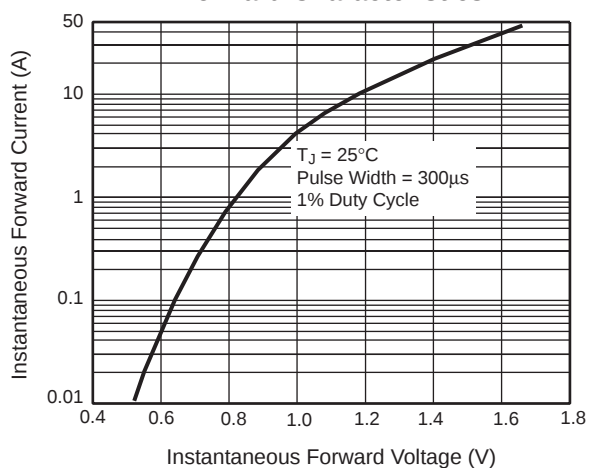


Fig. 4 — Typical Reverse Leakage Characteristics

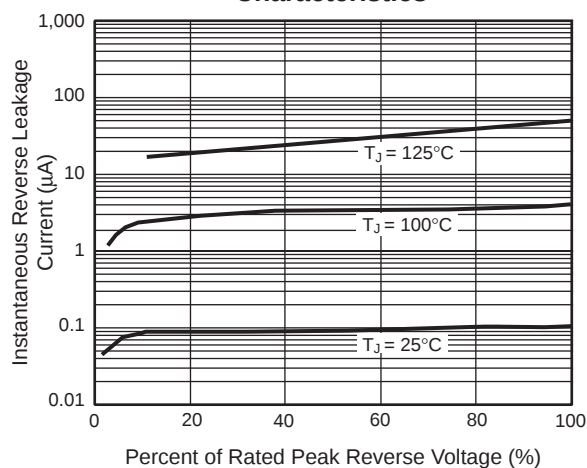


Fig. 5 — Typical Junction Capacitance

