



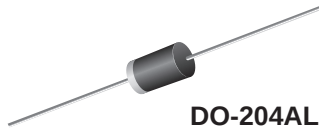
JAN and JANTX 1N3611 thru 1N3614 and 1N3957

Patented*

Vishay Semiconductors
formerly GENERAL SEMICONDUCTOR®

Glass Passivated Rectifiers

Reverse Voltage 200 to 1000V
Forward Current 1.0A



DO-204AL (EG1)



Features

- Qualified to MIL-PRF-19500/228
- Class 1 high temperature metallurgically bonded construction brazed > 600°C
- 1.0 ampere operation at $T_A = 55^\circ\text{C}$ with no thermal runaway
- Typical I_R less than $0.1\mu\text{A}$
- Cavity-free, glass passivated junction. In epoxy over hermetic glass
- High temperature soldering guaranteed: $350^\circ\text{C}/10$ seconds, 0.375 (9.5mm) lead length, 5 lbs. (2.3kg) tension

Mechanical Data

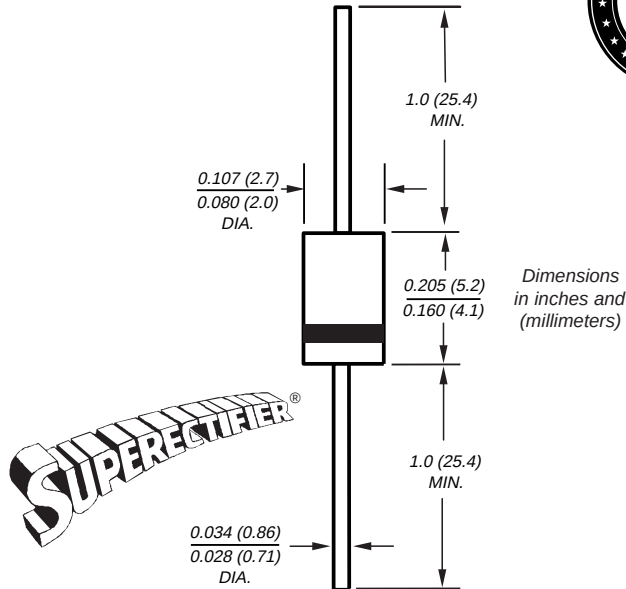
Case: DO-204AL, molded epoxy over glass body (EG1)

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

Polarity: Color band denotes cathode end

Mounting Position: Any **Weight:** 0.015oz., 0.4g

Flammability: Epoxy is rated UL 94V-0.



* Glass-plastic encapsulation technique is covered by Patent No. 3,996,602 and brazed-lead assembly by Patent No. 3,930,306

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Prefix J = JAN Quality Level; Prefix JX = JANTX Quality Level					Unit
		J,JX 1N3611	J,JX 1N3612	J,JX 1N3613	J,JX 1N3614	J,JX 1N3957	
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	200	400	600	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 55^\circ\text{C}$	$I_{F(AV)}$	1.0					A
Peak forward surge current 10 surges of 8.3ms each at 1 min. intervals super-imposed on $I_o = 750\text{mA}$ DC; $V_R = \text{rated } V_{RRM}$ $T_A = 100^\circ\text{C}$ (per MIL-STD-750 m 4066)	I_{FSM}	30					A
Typical thermal resistance ⁽¹⁾	$R_{\theta JL}$ $R_{\theta JA}$	38 45					$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175					$^\circ\text{C}$
Barometric Pressure	Hg	8		54		87	mm

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Minimum reverse breakdown voltage at $50\mu\text{A}$	V_{BR}	220	440	660	880	1100	V
Maximum instantaneous forward voltage $T_p = 300\mu\text{s}$ at 1.0A, $T_A = 25^\circ\text{C}$ at 3.0A, $T_A = 25^\circ\text{C}$ at 1.0A, $T_A = -65^\circ\text{C}$	V_F	1.1 1.3 1.5					V
Maximum DC reverse current at rated DC blocking voltage $T_A = 25^\circ\text{C}$ $T_A = 150^\circ\text{C}$	I_R	1 300					μA
Typical reverse recovery time at $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$	t_{rr}	2.0					μs
Typical junction capacitance at 4V, 1MHz	C_J	8.0					pF

Notes: (1) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

Ratings and

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

Fig. 1 – Forward Current Derating Curve

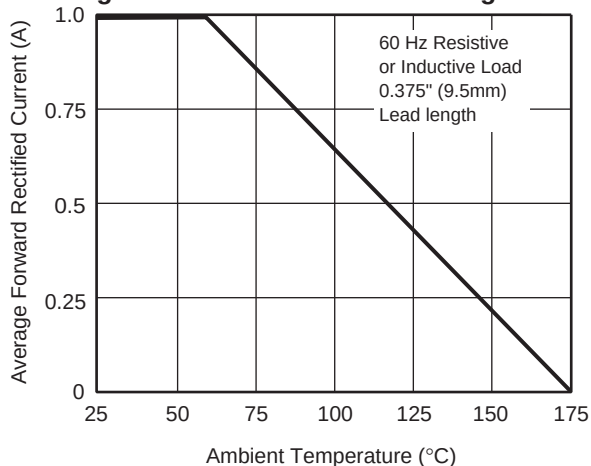


Fig. 2 – Typical Instantaneous Forward Characteristics

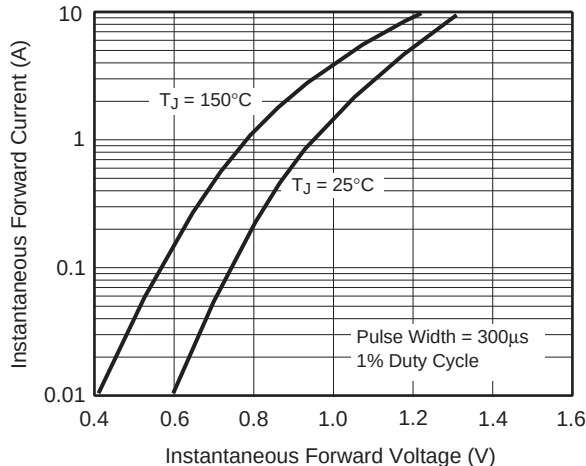


Fig. 3 – Typical Reverse Characteristics

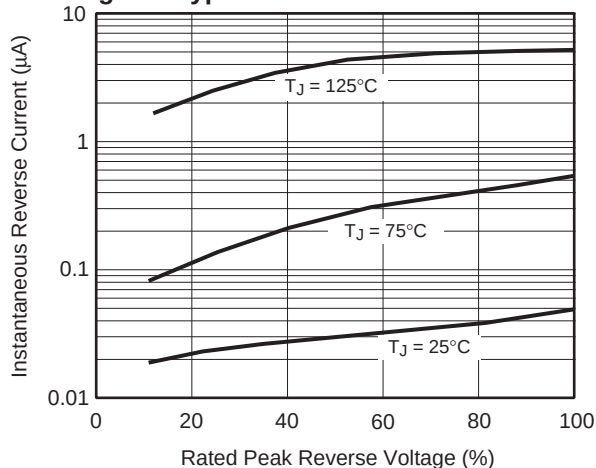


Fig. 4 – Typical Junction Capacitance

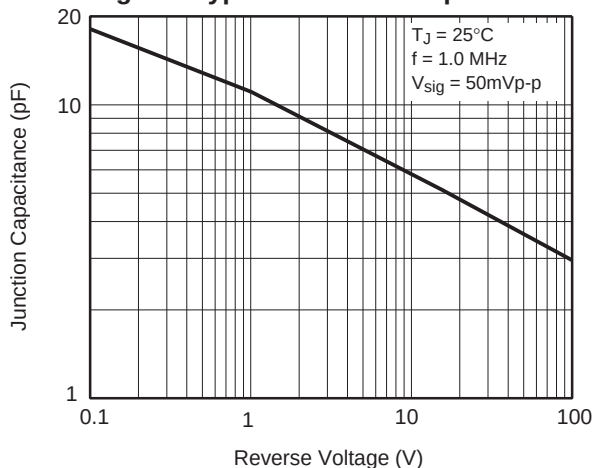


Fig. 5 – Typical Transient Thermal Impedance

