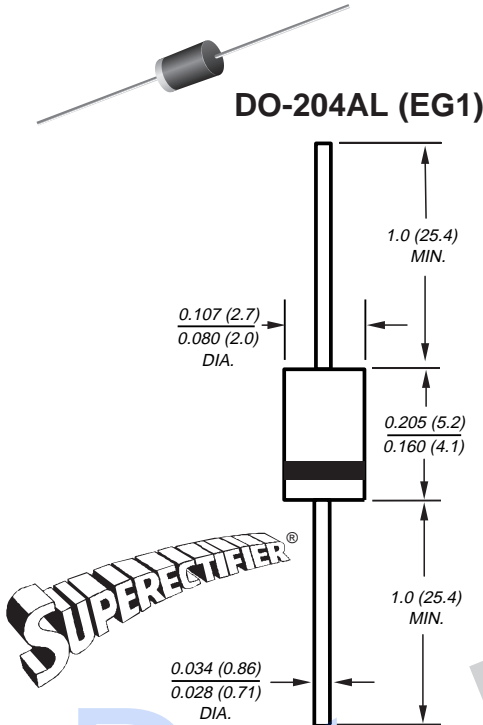


JAN1N3611 thru JAN1N3614 and JAN1N3957 Glass Passivated Rectifiers

Reverse Voltage 200 to 1000V
Forward Current 1.0A



Dimensions in inches and (millimeters)

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

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°C with no thermal runaway
- Typical I_R less than 0.1μA
- Cavity-free, glass passivated junction. In epoxy over hermetic glass.
- High temperature soldering guaranteed: 350°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:** 0.015 ounce, 0.4 gram

Flammability: Epoxy is rated UL 94V-0.

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	JAN 1N3611	JAN 1N3612	JAN 1N3613	JAN 1N3614	JAN 1N3957	Unit
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°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 = 1A DC; V _R = rated V _{RRM} T _A = 25°C (per MIL-STD-750 m 4066)	I _{FSM}	30					A
Typical thermal resistance (NOTE 1)	R _{θJL} R _{θJA}	38 45					°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +175					°C
Barometric Pressure	Hg	8		54		87	mm

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	JAN 1N3611	JAN 1N3612	JAN 1N3613	JAN 1N3614	JAN 1N3957	Unit
Minimum reverse breakdown voltage at 50μA	V _{BR}	220	440	660	880	1100	V
Maximum instantaneous forward voltage T _p = 300μs at 1.0A, T _A = 25°C at 3.0A, T _A = 25°C at 1.0A, T _A = -65°C	V _F	1.1 1.3 1.5					V
Maximum DC reverse current at rated DC blocking voltage T _A = 25°C T _A = 150°C	I _R	1 300					μA
Typical reverse recovery time at I _F = 0.5A, I _R = 1.0A, I _{rr} = 0.25A	t _{rr}	2.0					μs
Typical junction capacitance at 4V, 1MHz	C _J	8.0					pF

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

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

Fig. 1 – Forward Current Derating Curve

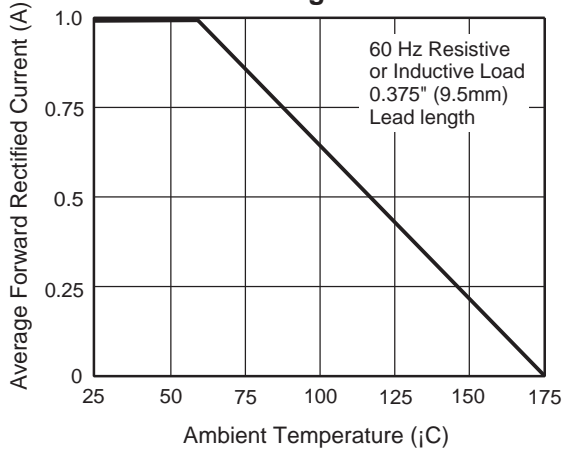


Fig. 2 – Typical Instantaneous Forward Characteristics

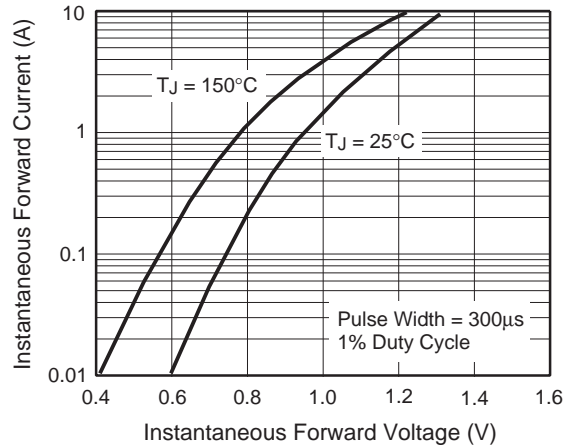


Fig. 3 – Typical Reverse Characteristics

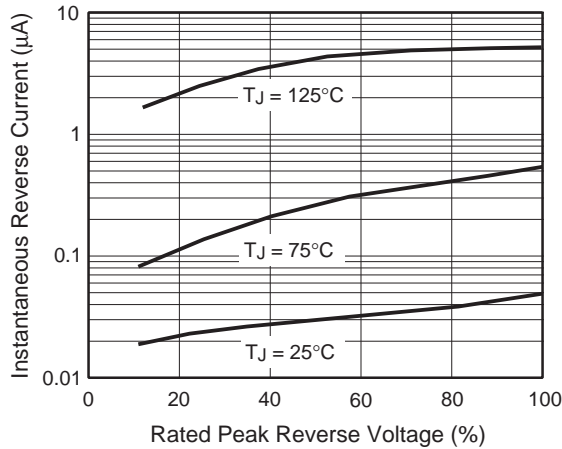


Fig. 4 – Typical Junction Capacitance

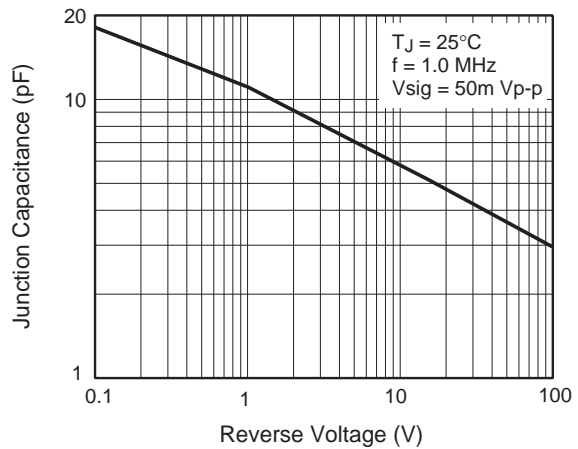


Fig. 5 – Typical Transient Thermal Impedance

