JAN1N6804UEG2 thru JAN1N6810UEG2

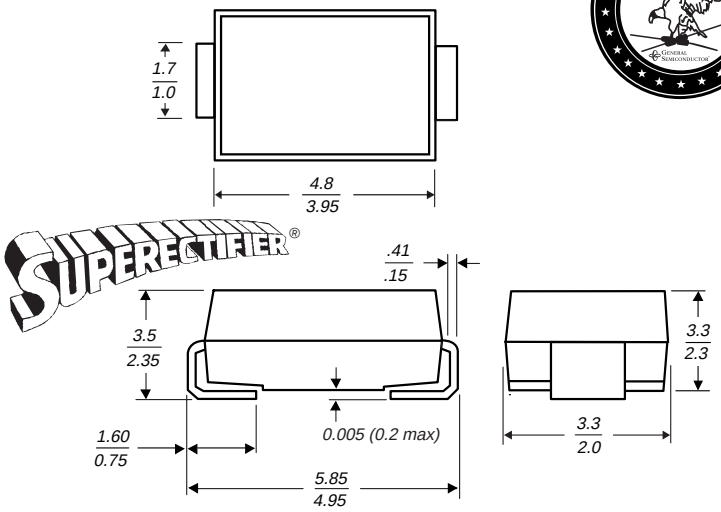
Patented*

Vishay Semiconductors
formerly General Semiconductor®

Glass Passivated Rectifiers

Reverse Voltage 50 to 1000V
Forward Current 1.0A

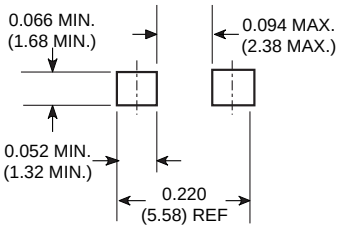
DO-214BA (UEG2)



Dimensions in millimeters

Glass-plastic encapsulation technique is covered by Patent No. 3,996,602, brazen-lead assembly by Patent No. 3,930,306 and lead forming by Patent No. 5,151,846

Mounting Pad Layout



Mechanical Data

Case: DO-214BA, molded epoxy over glass body (UEG2)
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any **Weight:** 0.0048oz, 0.120g
Flammability: Epoxy is rated UL 94V-0.

Features

- **Qualified to MIL-PRF-19500/669**
- Class 1 high temperature metallurgically bonded construction brazed > 600°C
- Cavity-free, glass passivated junction. In epoxy over hermetic glass.
- High temperature soldering guaranteed: 450°C/5 seconds at teminals
- Ideal for surface mount applications • Typical I_R < 0.1μA
- Built-in strain relief • Easy pick and place
- Complete device submersible temperature of 265°C for 10 seconds in solder bath

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symb.	Prefix J = JAN Quality Level; Prefix JX = JANTX Quality Level							Unit
		J 1N6804	J 1N6805	J 1N6806	J 1N6807	J 1N6808	J 1N6809	J 1N6810	
Device marking code		JA	JB	JC	JD	JE	JF	JG	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at T_L = 125°C	$I_{F(AV)}$	1.0							A
Peak forward surge current 10 surges of 8.3ms each at 1 min. intervals (per MIL-STD-750 m 4066) super-imposed on I_O = 750mA DC; V_R = rated V_{RRM}, T_A = 100°C	I_{FSM}	25							A
Typical thermal resistance(1)	$R_{\theta JL}$ $R_{\theta JA}$	25 80							°C/W
Operating junction and storage temperature range	T_J,T_{STG}	–55 to +175							°C
Barometric Pressure	Hg	8					33		

Note: (1) Thermal resistance measured with devices P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.

Electrical Characteristics (T_J = 25°C unless otherwise noted)

Minimum reverse breakdown voltage at 50μA		V_{BR}	55	110	220	440	660	880	1100	V
Maximum instantaneous forward voltage T_P = 300μs	at 1.0A at 3.0A	V_F				1.1 1.3				V
Maximum DC reverse current at rated DC blocking voltage	T_A = 25°C T_A = 125°C	I_R				0.5 50				μA
Typical reverse recovery time at I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25 A		t_{rr}				2.0				μs
Typical junction capacitance at 4.0V, 1MHz		C_J				15				pF

Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

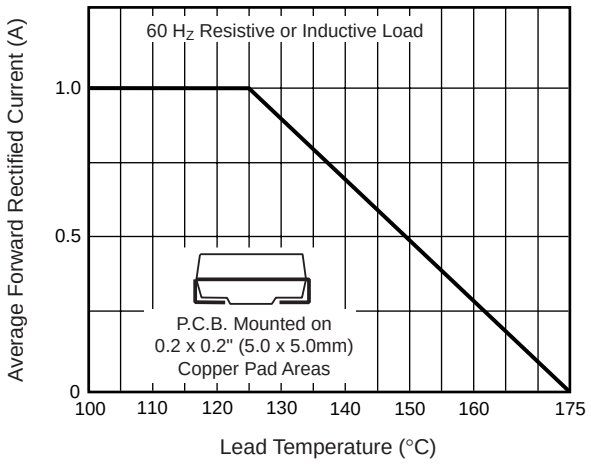
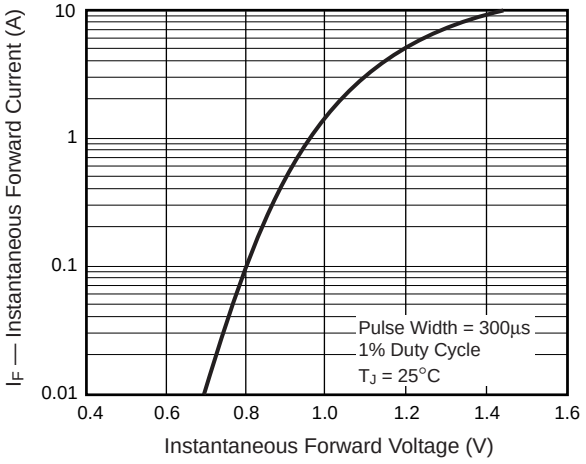


Fig. 2 – Typical Instantaneous Forward Characteristics



Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 3 – Typical Reverse Characteristics

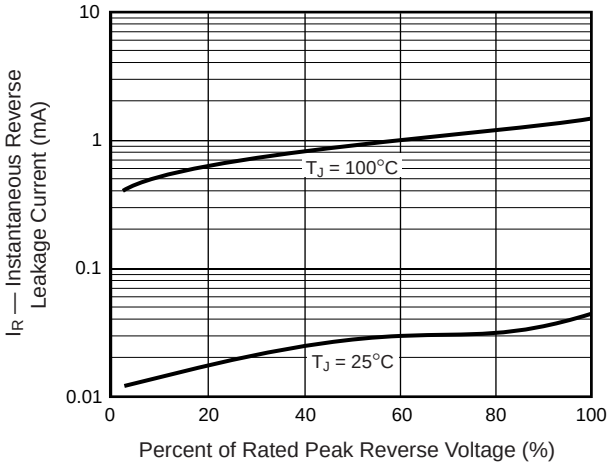


Fig. 4 – Typical Junction Capacitance

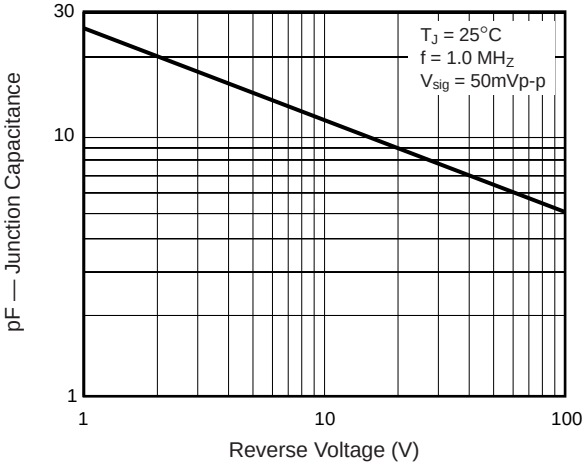


Fig. 5 – Typical Transient Thermal Impedance