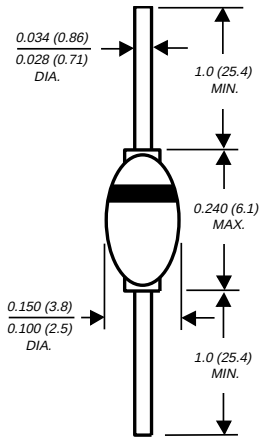
1N5614 THRU 1N5622

GLASS PASSIVATED MEDIUM-SWITCHING JUNCTION RECTIFIER

Reverse Voltage *- 200 to 1000 Volts* ***Forward Current*** *- 1.0. Ampere*

PATENTED*

DO-204AP



Dimensions in inches and (millimeters)

* *Brazed-lead assembly is covered by Patent No. 3,930,306*

FEATURES

- ♦ High temperature metallurgically bonded construction
- ♦ 1.0 Ampere operation at T_A= 55°C with no thermal runaway
- ♦ Typical I_R less than 0.1µA
- ♦ Hermetically sealed package
- ♦ Capable of meeting environmental standards of MIL-S-19500
- ♦ High temperature soldering guaranteed: 350°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-204AP solid glass body
Terminals: Solder 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 AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	1N5614	1N5616	1N5618	1N5620	1N5622	UNITS
* Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	140	280	420	560	700	Volts
* Maximum DC blocking voltage	V_{DC}	200	400	600	800	1000	Volts
* Minimum reverse breakdown voltage at 50µA	V_{BR}	220	440	660	880	1100	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T_A=55°C	$I_{(AV)}$	1.0					Amp
* Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0					Amps
* Maximum instantaneous forward voltage at 1.0A	V_F	1.2					Volts
* Maximum DC reverse current at rated DC blocking voltage T_A=25°C T_A=100°C T_A=200°C	I_R	0.5 25.0 1500					µA
* Maximum reverse recovery time (NOTE 1)	t_{rr}	2.0					µs
Maximum junction capacitance (NOTE 2)	C_J	45	35	25	20	15	pF
Typical thermal resistance (NOTE 3)	$R_{\Theta JA}$	55.0					°C/W
* Operating junction temperature range	T_J	-65 to +175					°C
* Storage temperature range	T_{STG}	-65 to +200					°C

NOTES:
(1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, Irr=0.25A
(2) Measured at 1.0 MHz and applied reverse voltage of 12 Volts
(3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length P.C.B. mounted
*JEDEC registered values

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RATINGS AND CHARACTERISTIC CURVES 1N5614 THRU 1N5622

FIG. 1 - FORWARD CURRENT DERATING CURVE

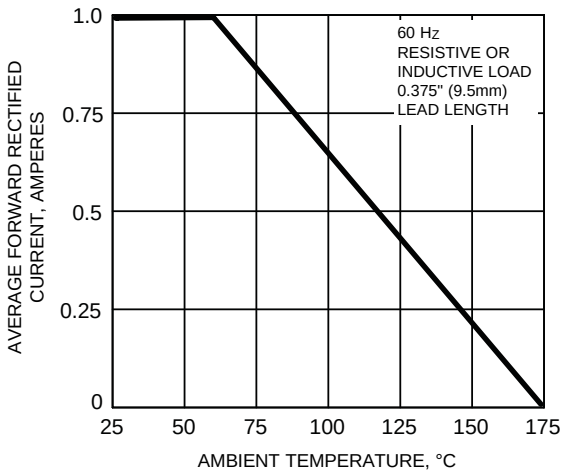


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

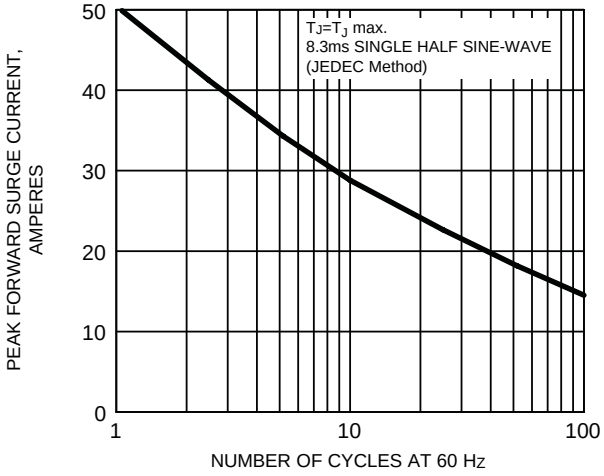


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

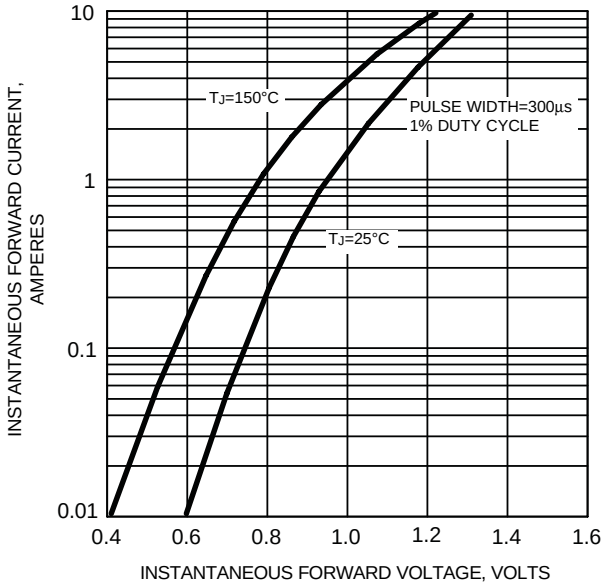


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

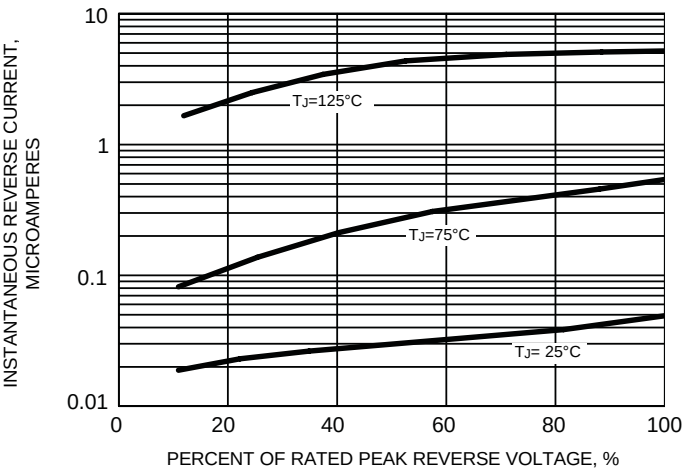
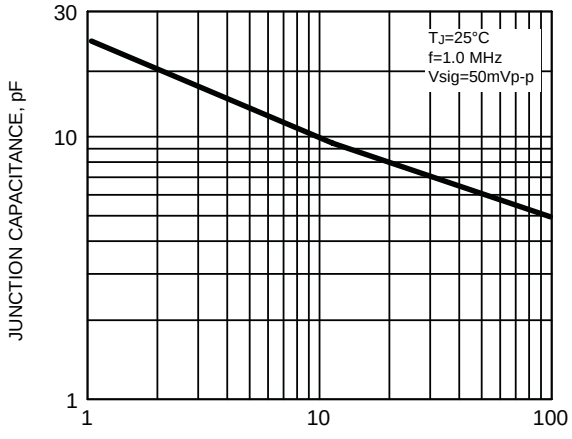


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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