

1N5614 THRU 1N5622

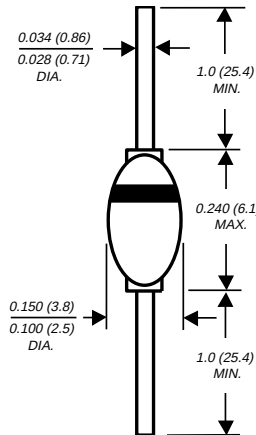
GLASS PASSIVATED MEDIUM-SWITCHING JUNCTION RECTIFIER

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 $T_A = 55^\circ\text{C}$ with
no thermal runaway
 - ◆ Typical I_R less than $0.1\mu\text{A}$
 - ◆ Hermetically sealed package
 - ◆ Capable of meeting environmental standards of MIL-S-19500
 - ◆ High temperature soldering guaranteed:
 $350^\circ\text{C}/10$ 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 T _A =25°C at rated DC blocking voltage 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 _{θJA}	55.0					°C/W
* Operating junction temperature range	T _J	-65 to +175					°C
* Storage temperature range	T _{STG}	-65 to +200					°C

NOTES:

NOTES:
(1) Reverse recovery test conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$

(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

RATINGS AND CHARACTERISTIC CURVES 1N5614 THRU 1N5622

FIG. 1 - FORWARD CURRENT DERATING CURVE

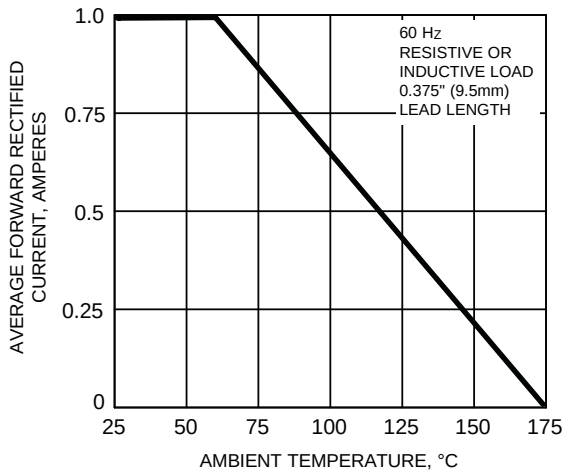


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

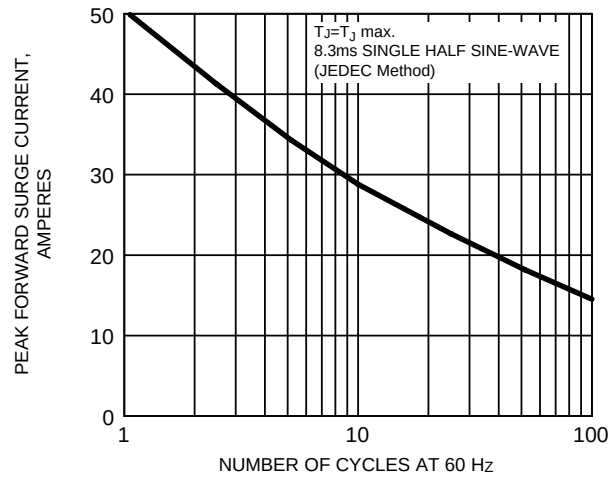


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

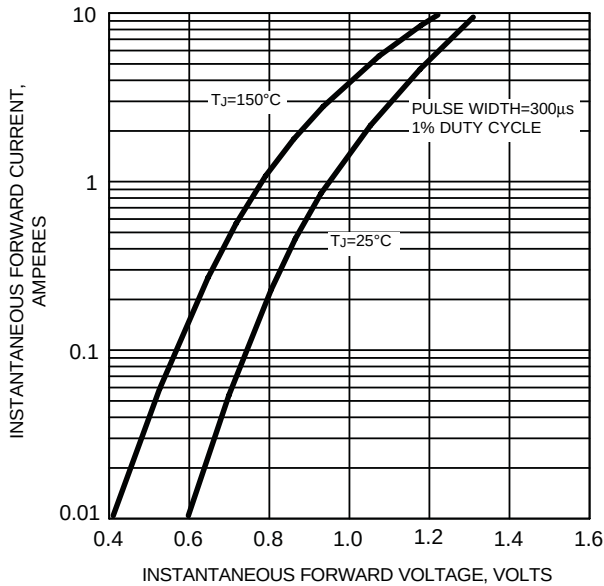


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

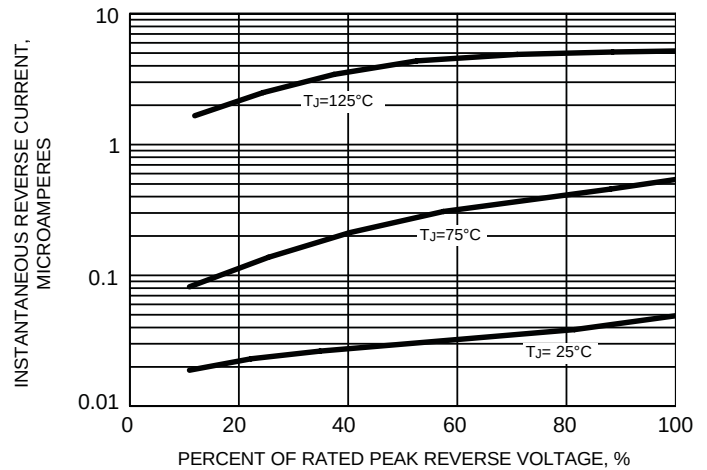


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

