

# 1N5614 - 1N5622

## GLASS PASSIVATED JUNCTION SILICON RECTIFIERS

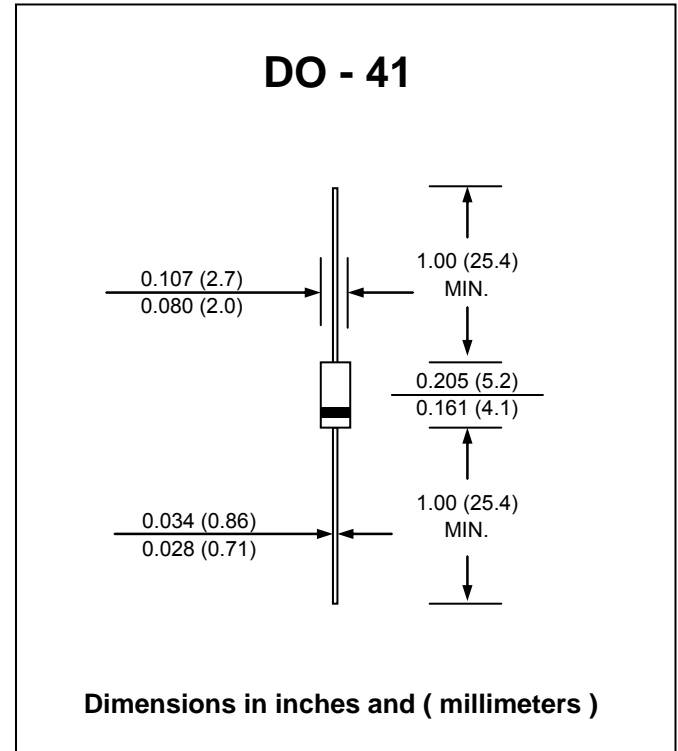
**PRV : 200 - 1000 Volts**  
**Io : 1.0 Ampere**

### FEATURES :

- \* Glass passivated chip
- \* High forward surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Pb / RoHS Free

### MECHANICAL DATA :

- \* Case : DO-41 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.34 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

RATING	SYMBOL	1N5614	1N5616	1N5618	1N5620	1N5622	UNIT
Maximum Working Peak Reverse Voltage	$V_{RWM}$	200	400	600	800	1000	V
Minimum Breakdown Voltage @ 50 $\mu$ A	$V_{BR(MIN)}$	220	440	660	880	1100	V
Maximum Average Forward Current at $T_a = 55\text{ }^\circ\text{C}$ at $T_a = 100\text{ }^\circ\text{C}$	$I_{F(AV)}$	1.0 0.75					A
Peak Forward Surge Current ( $T_a = 100\text{ }^\circ\text{C}$ , $f = 60\text{ Hz}$ , $I_{F(AV)} = 750\text{ mA}$ for ten 8.3 ms surges @ 1 minute intervals)	$I_{FSM}$	30					A
Minimum Forward Voltage at $I_F = 3.0\text{ A}$	$V_{F(MIN)}$	0.8					V
Maximum Forward Voltage at $I_F = 3.0\text{ A}$	$V_{F(MAX)}$	1.3					V
Maximum Reverse Current at $V_{RWM}$ , $T_a = 25\text{ }^\circ\text{C}$ at $V_{RWM}$ , $T_a = 100\text{ }^\circ\text{C}$	$I_R$	0.5					$\mu$ A
	$I_{R(H)}$	25					
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	2.0					$\mu$ s
Thermal Resistance , Junction to Lead (Note 2)	$R_{\theta JL}$	38					$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-65 to +175					$^\circ\text{C}$

#### Notes :

- (1) Reverse Recovery Test Conditions :  $I_F = 0.5\text{ A}$ ,  $I_{RM} = 1.0\text{ A}$ ,  $I_{R(REC)} = 0.25\text{ A}$ .
- (2) At 3/8"(10 mm) lead length form body.