

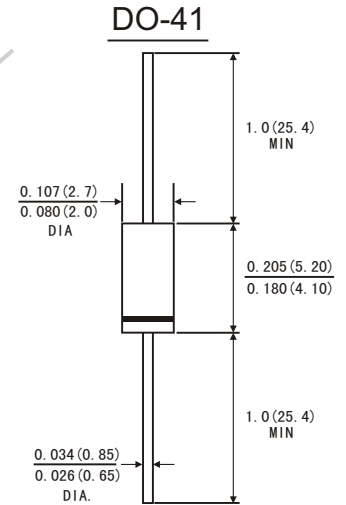


## FEATURES

- Glass passivated cavity-free junction
- Capable of meeting environmental standards of MIL-S-19500
- 1.0Ampere operation at  $T_a=75^{\circ}\text{C}$  and  $55^{\circ}\text{C}$  with no thermal runaway
- Typical IR less than 0.1 $\mu\text{A}$
- High temperature soldering guaranteed:  $260^{\circ}\text{C}/10$  seconds at terminals
- Plastic Package has Under writers Laboratory Flammability Classification 94V-0
- Component in accordance to RoHs 2002/95/EC and WEEE 2002/96/EC

## MECHANICAL DATA

- *Case:* JEDEC DO-41 molded plastic body
- *Terminals:* Lead solderable per MIL-STD-750,method 2026
- *Polarity:* Color band denotes cathode end
- *Mounting Position:* Any
- *Weight:* 0.012ounce, 0.33 gram



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at  $25^{\circ}\text{C}$  ambient temperature unless otherwise specified )

|   |                             | Symbols            | 1N<br>4001G | 1N<br>4002G | 1N<br>4003G | 1N<br>4004G | 1N<br>4005G | 1N<br>4006G | 1N<br>4007G | Unis                        |
|---|-----------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------|
| Maximum Recurrent Peak Reverse Voltage  |                             | $V_{RRM}$          | 50          | 100         | 200         | 400         | 600         | 800         | 1000        | Volts                       |
| Maximum RMS Voltage   |                             | $V_{RMS}$          | 35          | 70          | 140         | 280         | 420         | 560         | 700         | Volts                       |
| Maximum DC Blocking Voltage   |                             | $V_{DC}$           | 50          | 100         | 200         | 400         | 600         | 800         | 1000        | Volts                       |
| Maximum average Forward Rectified Current<br>0.375"(9.5mm) lead length at $T_A=75^{\circ}\text{C}$                  |                             | $I_{(AV)}$         | 1.0         |             |             |             |             |             |             | Amp                         |
| Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method) $T_A=75^{\circ}\text{C}$ |                             | $I_{FSM}$          | 30.0        |             |             |             |             |             |             | Amps                        |
| Maximum Instantaneous Forward Voltage at 1.0 A  |                             | $V_F$              | 1.0         |             |             |             |             |             |             | Volts                       |
| Maximum Reverse current at rated DC Blocking Voltage  | $T_c = 25^{\circ}\text{C}$  | $I_R$              | 5.0         |             |             |             |             |             |             | $\mu\text{A}$               |
|   | $T_c = 125^{\circ}\text{C}$ |                    | 100.0       |             |             |             |             |             |             |                             |
| Typical Thermal resistance (Note 2)   |                             | $R_{\theta JA}$    | 65.0        |             |             |             |             |             |             | $^{\circ}\text{C}/\text{W}$ |
| Typical Junction Capacitance(Note 1)  |                             | $C_J$              | 10.0        |             |             |             |             |             |             | pF                          |
| Operating and Storage temperature Range   |                             | $T_J$<br>$T_{STG}$ | -65 to +175 |             |             |             |             |             |             | $^{\circ}\text{C}$          |

*Note:* 1.Measured at 1MHz and applied reverse voltage of 4.0V DC.

2.Mount on Cu-Pad Size 5mm $\times$ 5mm on P. C. B.



FIG.1-FORWARD CURRENT DERATING CURVE

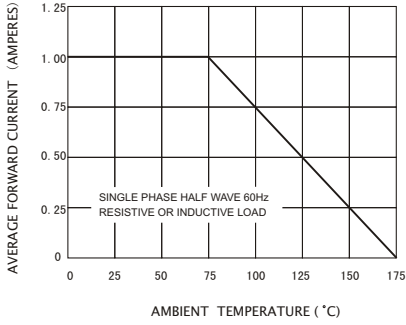


FIG.2-TYPICAL FORWARD CHARACTERISTICS

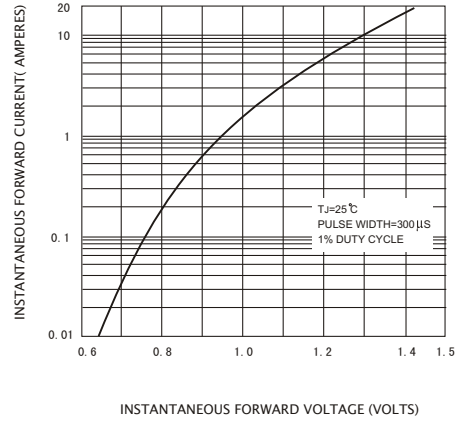


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

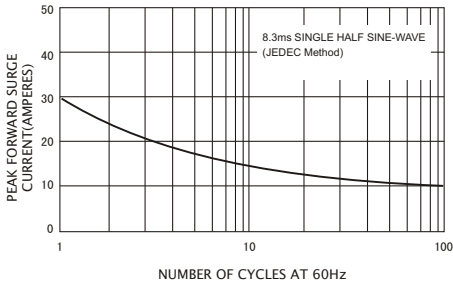


FIG.4-TYPICAL REVERSE CHARACTERISTICS

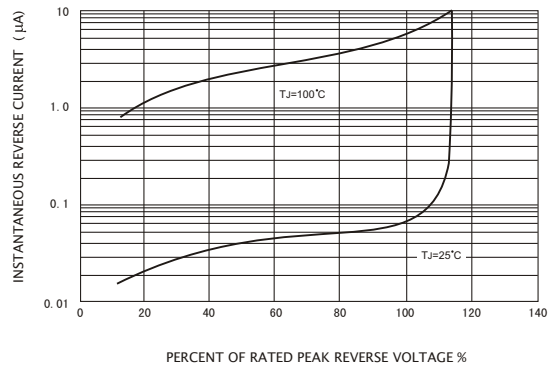


FIG.5-TYPICAL JUNCTION CAPACITANCE

