

**FAST RECOVERY RECTIFIERS**

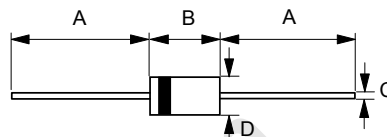
REVERSE VOLTAGE - **50 to 600** Volts  
 FORWARD CURRENT - **1.0** Ampere

**FEATURES**

- Fast switching for high efficiency
- Low cost
- Diffused junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

**MECHANICAL DATA**

- Case : JEDEC DO-41 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.012 ounces, 0.34 grams
- Mounting position : Any

**DO-41**


| DO-41                        |                    |                    |
|------------------------------|--------------------|--------------------|
| Dim.                         | Min.               | Max.               |
| A                            | 25.4               | -                  |
| B                            | 4.10               | 5.20               |
| C                            | 0.71 $\varnothing$ | 0.86 $\varnothing$ |
| D                            | 2.00 $\varnothing$ | 2.70 $\varnothing$ |
| All Dimensions in millimeter |                    |                    |

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

| CHARACTERISTICS                                                                                               | SYMBOL          | 1N4933      | 1N4934 | 1N4935 | 1N4936 | 1N4937 | UNIT                           |
|---------------------------------------------------------------------------------------------------------------|-----------------|-------------|--------|--------|--------|--------|--------------------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                        | $V_{RRM}$       | 50          | 100    | 200    | 400    | 600    | V                              |
| Maximum RMS Voltage                                                                                           | $V_{RMS}$       | 35          | 70     | 140    | 280    | 420    | V                              |
| Maximum DC Blocking Voltage                                                                                   | $V_{DC}$        | 50          | 100    | 200    | 400    | 600    | V                              |
| Maximum Average Forward Rectified Current @ $T_A=75^\circ\text{C}$                                            | $I_{(AV)}$      | 1.0         |        |        |        |        | A                              |
| Peak Forward Surge Current<br>8.3ms single half sine-wave<br>super imposed on rated load (JEDEC Method)       | $I_{FSM}$       | 30          |        |        |        |        | A                              |
| Maximum forward Voltage at 1.0A DC                                                                            | $V_F$           | 1.2         |        |        |        |        | V                              |
| Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$<br>at Rated DC Blocking Voltage @ $T_J=100^\circ\text{C}$ | $I_R$           | 5<br>100    |        |        |        |        | $\mu\text{A}$<br>$\mu\text{A}$ |
| Maximum Reverse Recovery Time (Note 1)                                                                        | $T_{RR}$        | 200         |        |        |        |        | ns                             |
| Maximum Reverse Recovery Time (Note 2)                                                                        | $T_{RR}$        | 130         |        |        |        |        | ns                             |
| Typical Junction Capacitance (Note 3)                                                                         | $C_J$           | 15          |        |        |        |        | pF                             |
| Typical Thermal Resistance (Note 4)                                                                           | $R_{\theta JA}$ | 50          |        |        |        |        | $^\circ\text{C/W}$             |
| Operating Temperature Range                                                                                   | $T_J$           | -55 to +125 |        |        |        |        | $^\circ\text{C}$               |
| Storage Temperature Range                                                                                     | $T_{STG}$       | -55 to +150 |        |        |        |        | $^\circ\text{C}$               |

NOTES : 1. Measured with  $I_F=1.0\text{A}$ ,  $V_R=30\text{V}$ ,  $di/dt=50\text{A}/\mu\text{s}$ .

2. Measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{RR}=0.25\text{A}$ .

3. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

4. Thermal Resistance Junction to Ambient.

REV. 3, Oct-2010, KDBC01

FIG.1 - FORWARD CURRENT DERATING CURVE

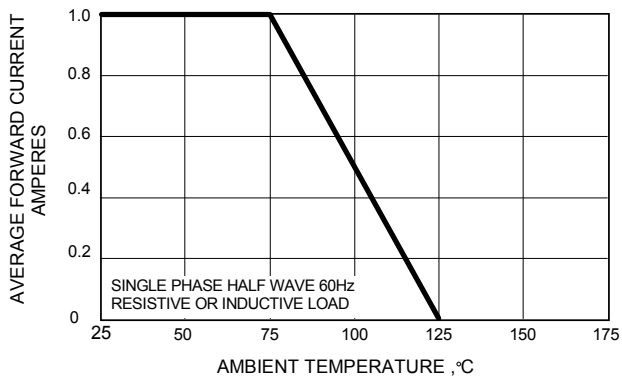


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

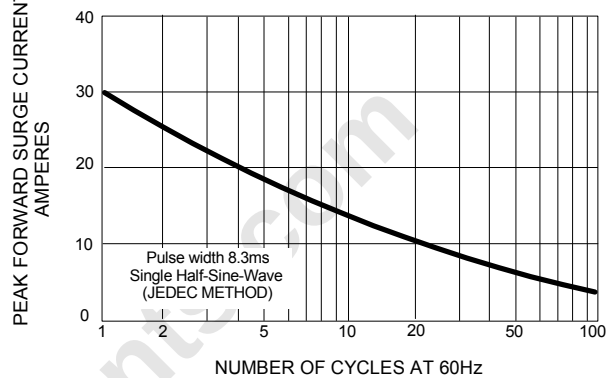


FIG.3 - TYPICAL JUNCTION CAPACITANCE

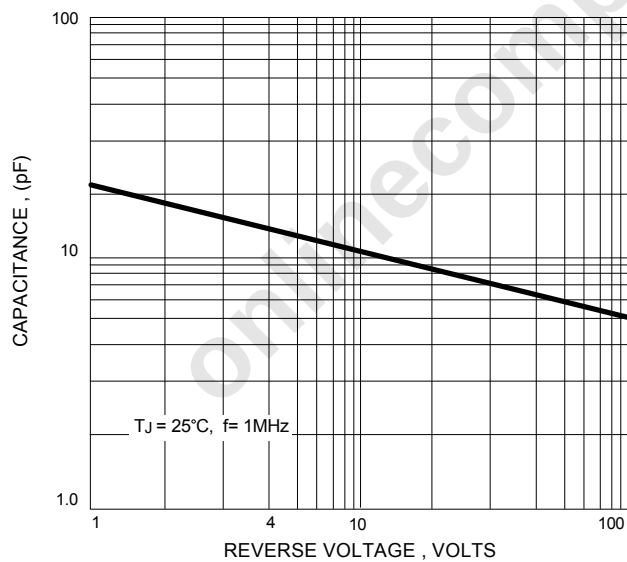
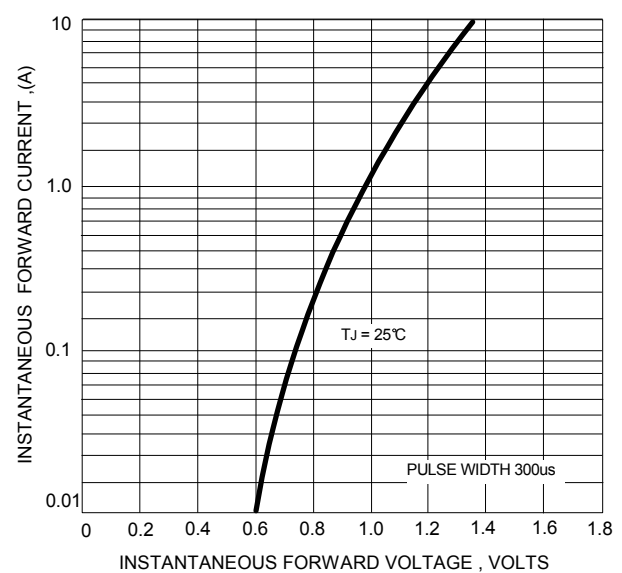


FIG.4 - TYPICAL FORWARD CHARACTERISTICS



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