

FAST RECOVERY RECTIFIERS

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

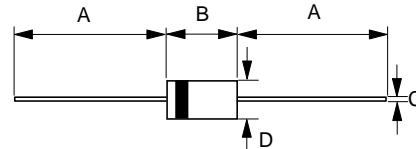
FEATURES

- 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 A-405 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.008 ounces, 0.22 grams
- Mounting position : Any

A-405



| A-405 | | |
|------------------------------|--------------------|--------------------|
| Dim. | Min. | Max. |
| A | 25.4 | - |
| B | 4.10 | 5.20 |
| C | 0.53 \varnothing | 0.64 \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.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

| CHARACTERISTICS | SYMBOL | 1N4933L | 1N4934L | 1N4935L | 1N4936L | 1N4937L | 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°C | I _(AV) | 1.0 | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave 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°C at Rated DC Blocking Voltage @T _J =100°C | I _R | 5.0 100 | | | | | uA uA |
| Maximum Reverse Recovery Time (Note 1) | T _{RR} | 200 | | | | | ns |
| Maximum Reverse Recovery Time (Note 1) | T _{RR} | 130 | | | | | ns |
| Typical Junction Capacitance (Note 2) | C _J | 15 | | | | | pF |
| Typical Thermal Resistance (Note 3) | R _{θJA} | 50 | | | | | °C/W |
| Operating Temperature Range | T _J | -55 to +125 | | | | | °C |
| Storage Temperature Range | T _{STG} | -55 to +150 | | | | | °C |

NOTES : 1.Measured with I_F=1.0A, V_R=30V, di/dt=50A/us.
2.Measured with I_F=0.5A, I_R=1A, I_{RR}=0.25A.
3.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
4.Thermal Resistance Junction to Ambient.

REV. 2, 01-Dec-2000, KDBB01

FIG. 1 - FORWARD CURRENT DERATING CURVE

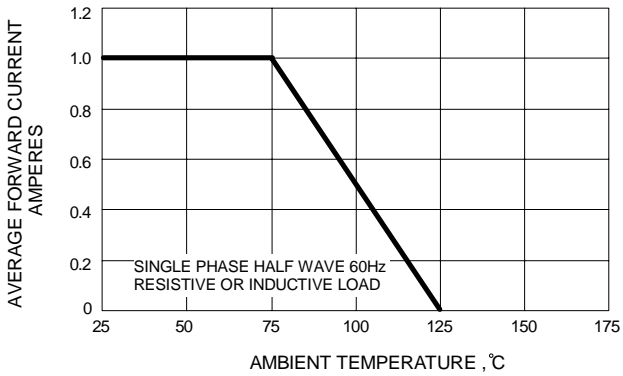


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

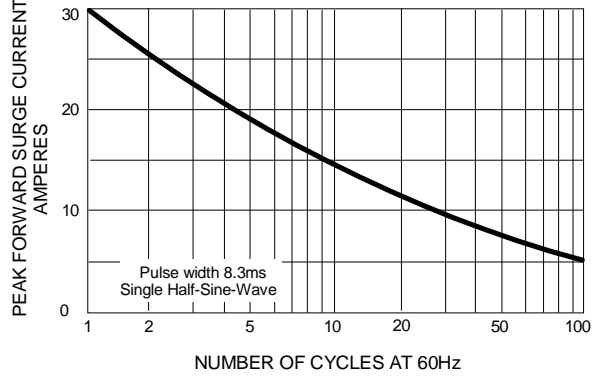


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

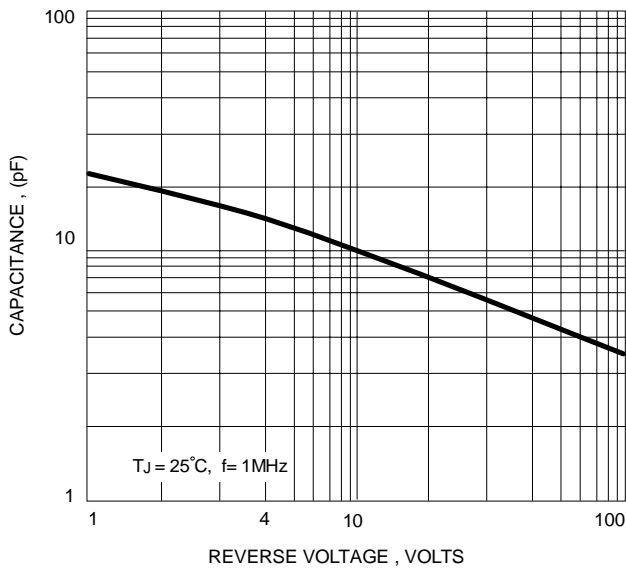


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

