

FAST RECOVERY RECTIFIERS

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

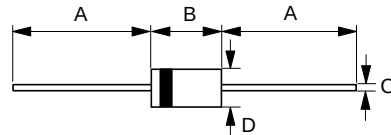
FEATURES

- 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 Ø	0.86 Ø
D	2.00 Ø	2.70 Ø
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	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 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 at Rated DC Blocking Voltage @ $T_J=25^\circ\text{C}$ @ $T_J=100^\circ\text{C}$	I_R	5 100					uA uA
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					°C/W
Operating Temperature Range	T_J	-55 to +125					°C
Storage Temperature Range	T_{STG}	-55 to +150					°C

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

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. 2, 01-Dec-2000, KDBC01

FIG.1 - FORWARD CURRENT DERATING CURVE

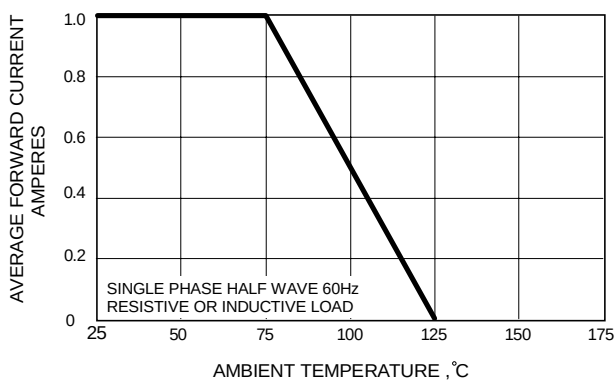


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

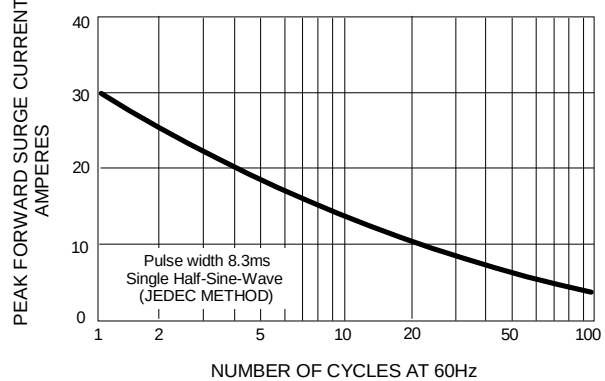


FIG.3 - TYPICAL JUNCTION CAPACITANCE

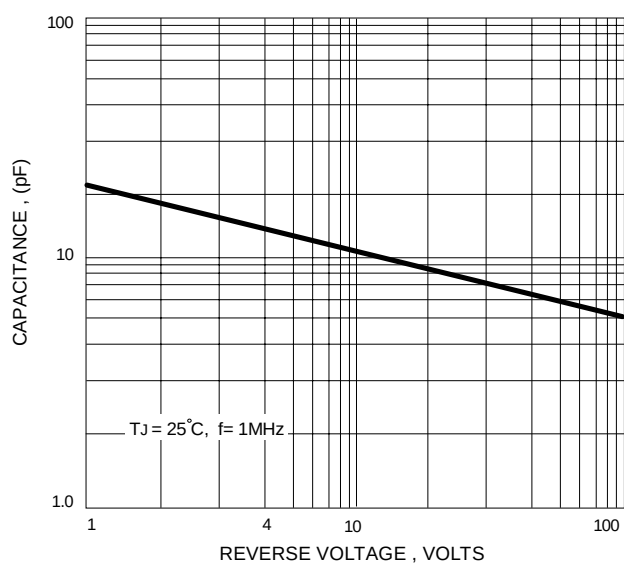


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

