



FAST RECOVERY RECTIFIERS

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

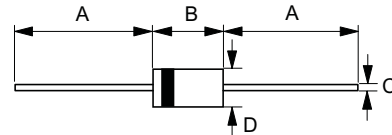
FEATURES

- Fast switching for high efficiency
- Diffused junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- Plastic material has UL flammability classification 94V-0

MECHANICAL DATA

- Case : A-405 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.01 ounces, 0.3 grams
- Mounting position : Any

A-405



Dim.	DO-41	
	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

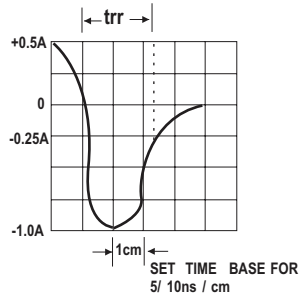
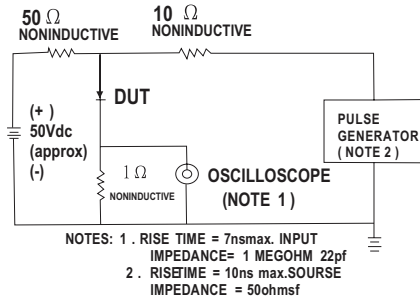
Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	1N4933S	1N4934S	1N4935S	1N4936S	1N4937S	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	I _{FSM}	30					A
Maximum forward Voltage at 1.0A DC	V _F	1.3					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
Typical Reverse Recovery Time (Note 1)	T _{RR}	200					ns
Typical Reverse Recovery Time (Note 2)	T _{RR}	130					ns
Typical Junction Capacitance (Note 3)	C _J	15					pF
Typical Thermal Resistance (Note 4)	R _{θJA}	50					°C/W
Operating Temperature Range	T _J	-55 to +150					°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.

RATINGS AND CHARACTERISTIC CURVES

FIG. 1 -REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



AVERAGE FORWARD RECTIFIED CURRENT AMPERES.

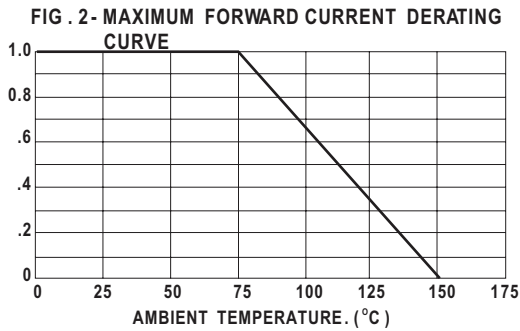


FIG. 2- MAXIMUM FORWARD CURRENT DERATING CURVE

PEAK FORWARD SURGE CURRENT AMPERES

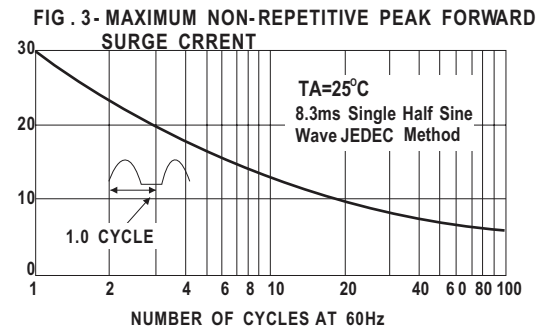


FIG. 3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

JUNCTION CAPACITANCE (pF)

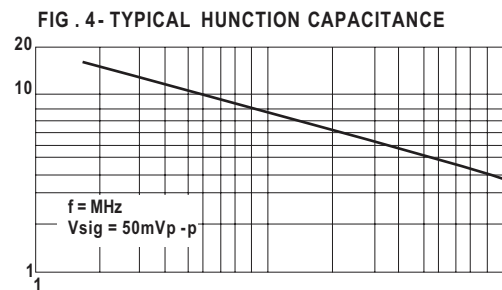


FIG. 4- TYPICAL JUNCTION CAPACITANCE

REVERSE VOLTAGE . (V)

FIG. 5- TYPICAL FORWARD CHARACTERISTICS

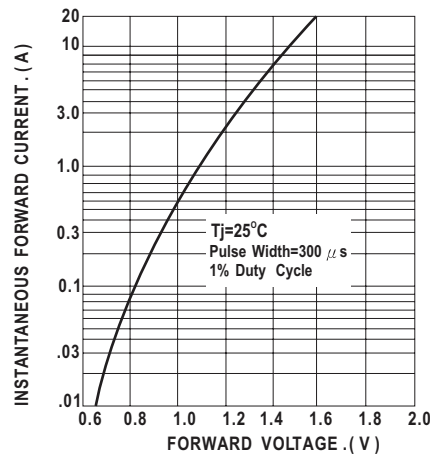


FIG. 6- TYPICAL REVERSE CHARACTERISTICS

