

## FAST RECOVERY RECTIFIERS

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

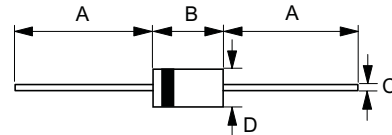
### FEATURES

- 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.	A-405	
	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

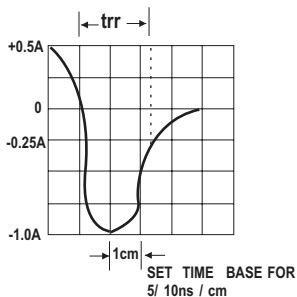
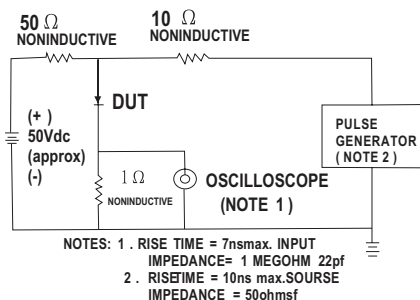
Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	1N4933S	1N4934S	1N4935S	1N4936S	1N4937S	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	V
Maximum Average Forward Rectified Current @T <sub>A</sub> =75°C	I <sub>(AV)</sub>	1.0					A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load	I <sub>FSM</sub>	30					A
Maximum forward Voltage at 1.0A DC	V <sub>F</sub>	1.3					V
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Blocking Voltage @T <sub>J</sub> =100°C	I <sub>R</sub>	5.0 100					uA uA
Typical Reverse Recovery Time (Note 1)	T <sub>RR</sub>	200					ns
Typical Reverse Recovery Time (Note 2)	T <sub>RR</sub>	130					ns
Typical Junction Capacitance (Note 3)	C <sub>J</sub>	15					pF
Typical Thermal Resistance (Note 4)	R <sub>θJA</sub>	50					°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150					°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150					°C

- NOTES : 1. Measured with I<sub>F</sub>=1.0A, V<sub>R</sub>=30V, di/dt=50A/us.  
2. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>RR</sub>=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.

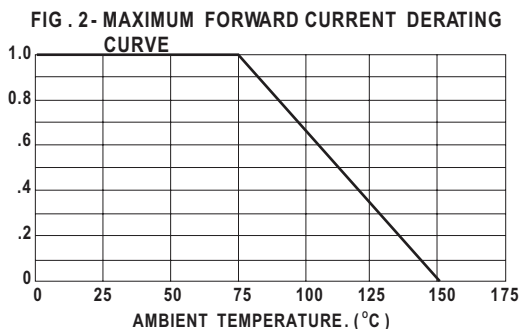
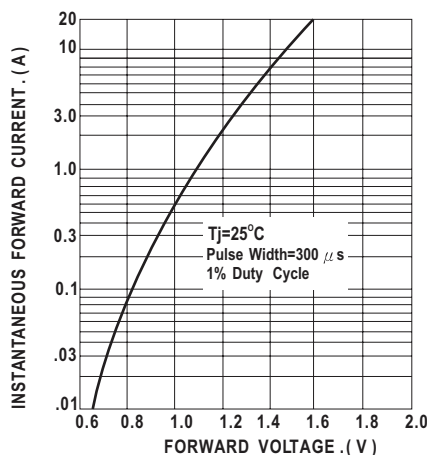
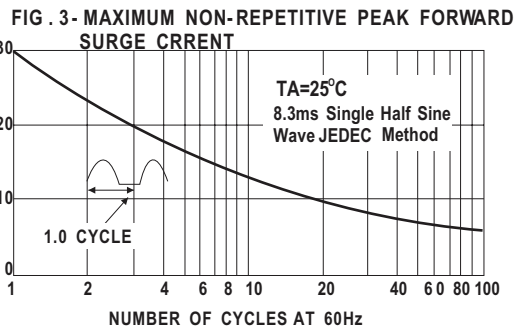


FIG. 5 - TYPICAL FORWARD CHARACTERISTICS



PEAK FORWARD SURGE CURRENT AMPERES



JUNCTION CAPACITANCE (pF)

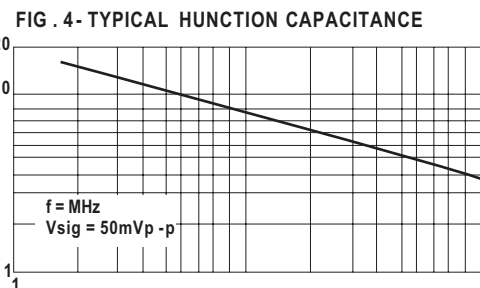


FIG. 6 - TYPICAL REVERSE CHARACTERISTICS

