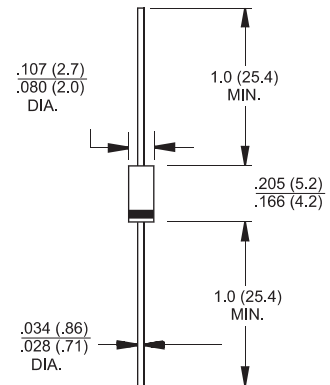




DO-41



Features

- ✧ Low cost construction
- ✧ Fast switching for high efficiency.
- ✧ Low reverse leakage
- ✧ High forward surge current capability
- ✧ High temperature soldering guaranteed:
260°C/10 seconds/0.375" (9.5mm) lead length
at 5 lbs (2,3kg) tension

Mechanical Data

- ✧ **Case:** Transfer molded plastic
- ✧ **Polarity:** Color band denotes cathode end
- ✧ **Mounting position:** Any
- ✧ **Weight:** 0.012 ounce, 0.33 gram

Dimensions in inches and (millimeters)

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%.

	SYMBOLS	1N4933	1N4934	1N4935	1N4936	1N4937	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at $T_A=75^\circ\text{C}$	$I_{(AV)}$	1.0					Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30					Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.2					Volts
Maximum DC Reverse Current at rated DC blocking voltage	$T_A=25^\circ\text{C}$	5.0					μAmps
	$T_A=100^\circ\text{C}$	100					
Maximum Reverse Recovery Time(NOTE3) $T_j=25^\circ\text{C}$	t_{rr}	200					nS
Maximum Reverse Recovery Current(NOTE 3)	$I_{RM(REC)}$	2.0					Amps
Typical Junction Capacitance(NOTE1)	C_J	15					pF
Typical Thermal Resistance(NOTE2)	$R_{\theta JA}$	50					$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150					$^\circ\text{C}$

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.

2. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length, P.C. board mounted.

3. Reverse Recovery Test Conditions: $I_F=1.0\text{A}$, $V_R=30\text{V}$, $di/dt=50\text{A}/\mu\text{s}$, $I_{rr}=10\% I_{RM}$ for measurement of t_{rr} .

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

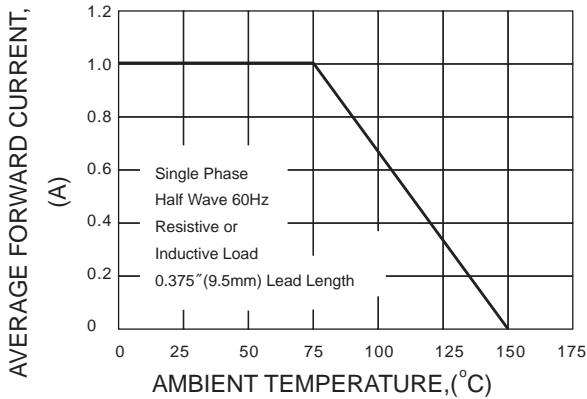


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

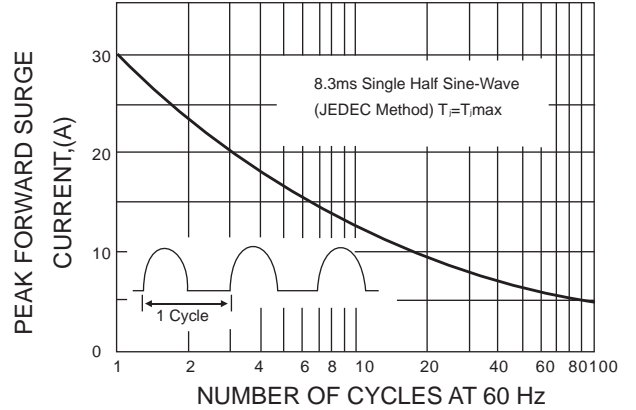


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

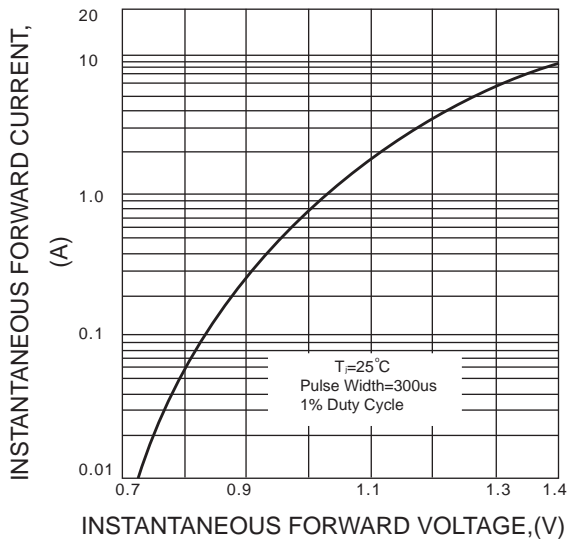


FIG.4-TYPICAL REVERSE CHARACTERISTICS

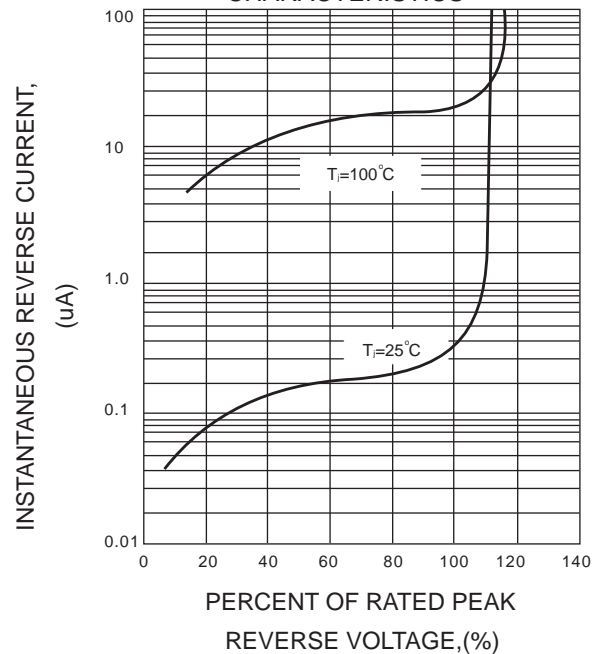


FIG.5-TYPICAL JUNCTION CAPACITANCE

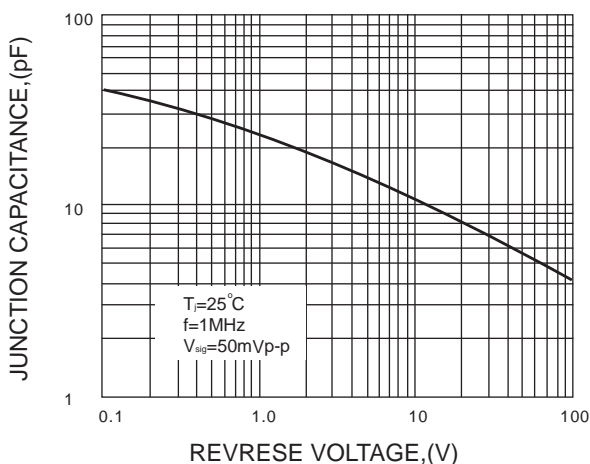


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

