

1N4001W THRU 1N4007W

GENERAL PURPOSE PLASTIC RECTIFIER
Reverse Voltage - 50 to 1000 Volts
Forward Current -1.0Ampere



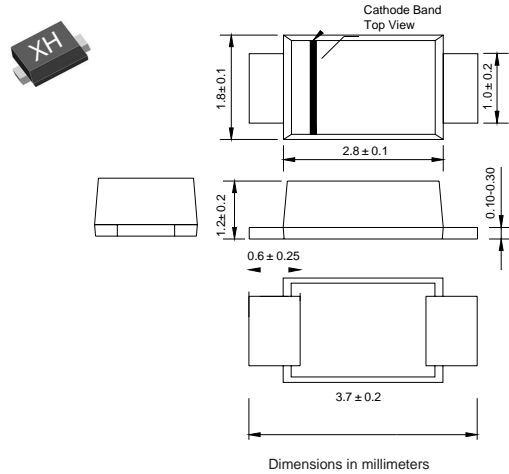
Features

- For surface mounted application
- Class passivated junction chip.
- Low forward voltage drop
- High current capability
- Easy pick and place
- High surge current capability
- Plastic material used carriers Underwriters Laboratory Classification 94V-0
- High temperature soldering:
250°C/ 10 seconds at terminals

Mechanical Data

Case : Molded plastic, JEDEC SOD123 / MNI SMA
Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
Polarity : Indicated by cathode band
Mounting Position : Any
Weight : 0.04 gram

SOD-123FL



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 by 20%.)

	Symbols	1N4001W	1N4002W	1N4003W	1N4004W	1N4005W	1N4006W	1N4007W	Unis
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	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 half sine-wave superimposed on rated load (JEDEC method) $T_A=75^\circ\text{C}$	I_{FSM}	30.0							Amps
Maximum Instantaneous Forward Voltage at 1.0 A	V_F	1.0							Volts
Maximum Reverse current at rated DC Blocking Voltage	$T_c = 25^\circ\text{C}$	5.0							μA
	$T_c = 100^\circ\text{C}$								
Typical Thermal resistance (Note 2)	$R_{\theta JA}$	65.0							$^\circ\text{C/W}$
Typical Junction Capacitance(Note 1)	C_J	10.0							pF
Maximum DC Blocking Voltage temperature	T_A	+150							$^\circ\text{C}$
Operating and Storage temperature Range	T_J T_{STG}	-65 to +150							$^\circ\text{C}$

Note: 1.Measured at 1MHz and applied reverse voltage of 4.0V DC.

2.Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm)lead length,
P.C.B. mounted

FIG.1-FORWARD CURRENT DERATING CURVE

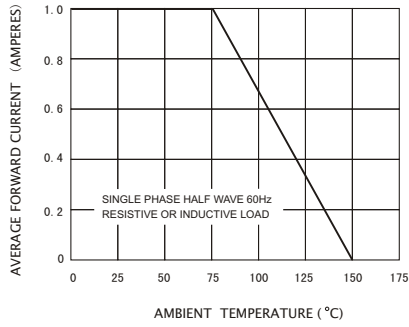


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

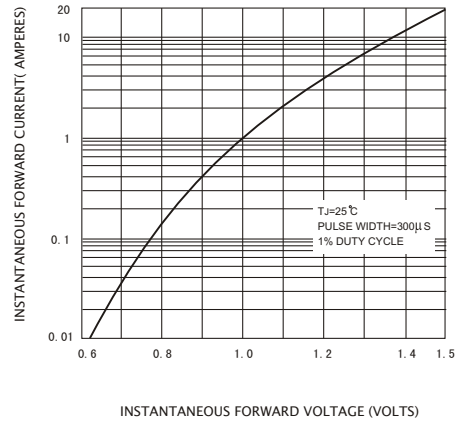


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

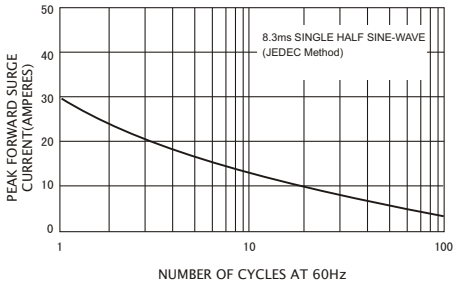


FIG.4-TYPICAL REVERSE CHARACTERISTICS

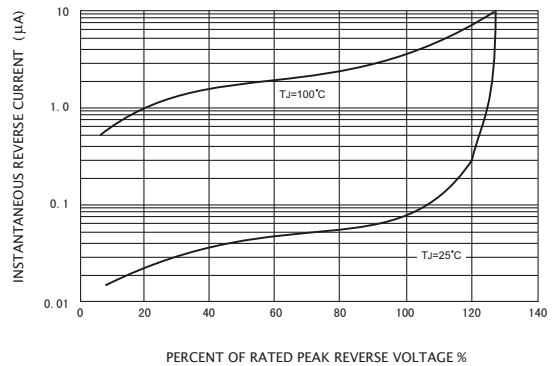


FIG.5-TYPICAL JUNCTION CAPACITANCE

