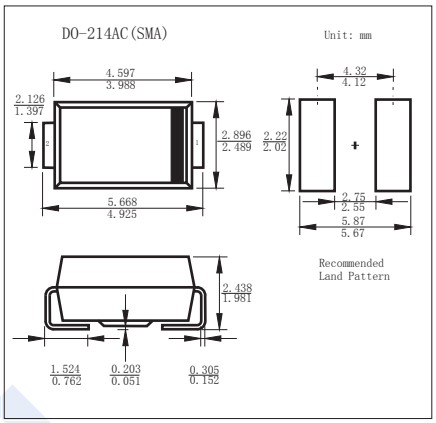
Rectifier Diodes

1N4001A ~ 1N4007A



■ Features

- Low forward voltage drop
- High current capability
- Easy pick and place
- High surge current capability
- Plastic material used carries Underwriters Laboratory Classification 94V-0

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	1N 4001A	1N 4002A	1N 4003A	1N 4004A	1N 4005A	1N 4006A	1N 4007A	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	
Forward Voltage @ 1A	V_F	1.1							
Averaged Forward Current.T_T=100℃	I_{FAV}	1							A
Peak Forward Surge Current @ 8.3ms	I_{FSM}	40						30	
Maximum DC Reverse Current Ta=25℃	I_R	5							μA
Ta=125℃		50							
Maximum Reverse Current *1	trr	1.5							us
Typical Junction Capacitance *2	Cj	12							pF
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	75					85		℃/W
Thermal Resistance Junction to Lead *3	$R_{\theta JL}$	27					30		
Junction Temperature	Tj	150							℃
Storage Temperature	Tstg	-55 to 150							

* 1 Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

* 2 Measured at 1 MHz and Applied V_R=4.0 V

■ Marking

NO.	1N4001A	1N4002A	1N4003A	1N4004A	1N4005A	1N4006A	1N4007A
Marking	M1	M2	M3	M4	M5	M6	M7

Rectifier Diodes

1N4001A ~ 1N4007A

■ Typical Characterisitics

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

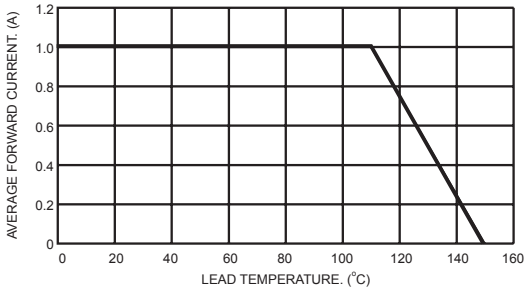


FIG.2- TYPICAL REVERSE CHARACTERISTICS

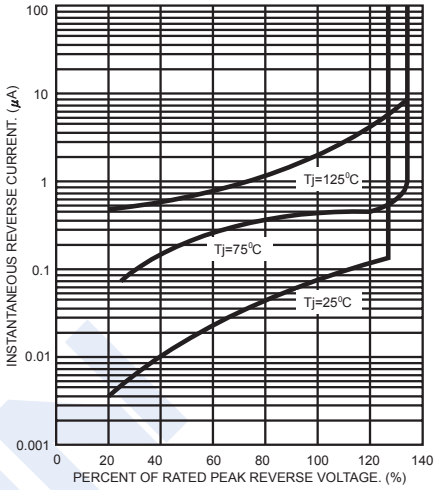


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

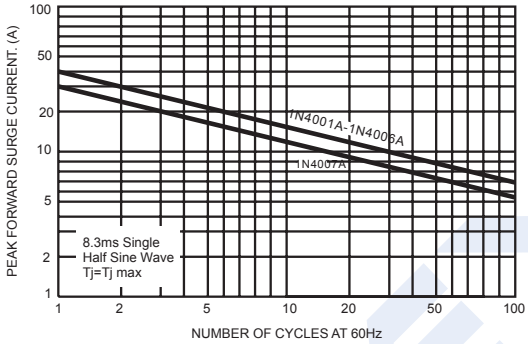


FIG.5- TYPICAL FORWARD CHARACTERISTICS

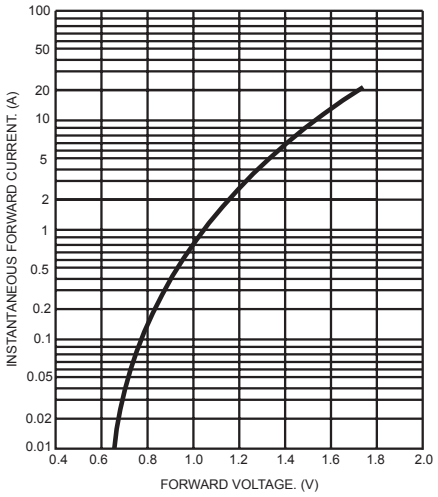


FIG.4- TYPICAL JUNCTION CAPACITANCE

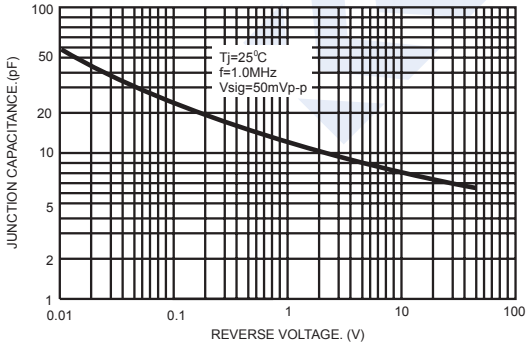
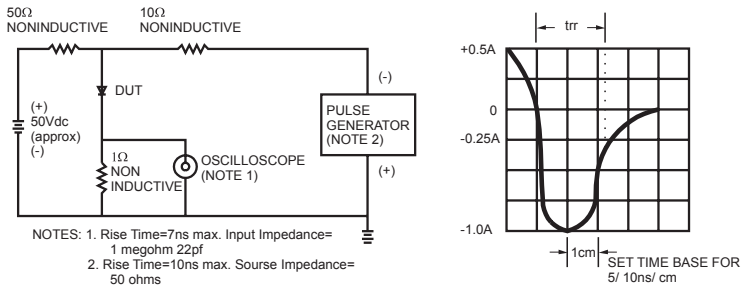


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time=7ns max. Input Impedance= 1 megohm 22pf
2. Rise Time=10ns max. Sourse Impedance= 50 ohms