

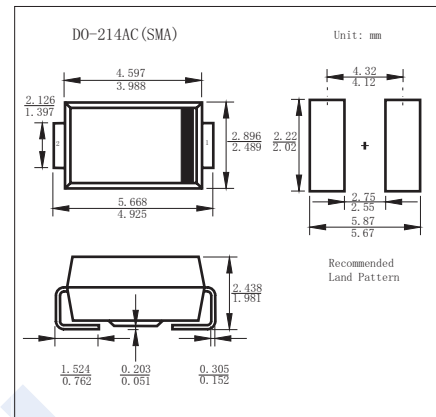
Rectifier Diodes

1N4001 ~ 1N4007

■ 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°C

Parameter	Symbol	1N 4001	1N 4002	1N 4003	1N 4004	1N 4005	1N 4006	1N 4007	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								A
Averaged Forward Current. T _T =100°C	I _{FAV}	1								
Peak Forward Surge Current @ 8.3ms	I _{FSM}	40							30	
Maximum DC Reverse Current Ta=25°C Ta=125°C	I _R	5								μA
Maximum Reverse Current *1	t _{rr}	1.5								
Typical Junction Capacitance *2	C _j	12								pF
Thermal Resistance Junction to Ambient	R _{θJA}	75						85		°C/W
Thermal Resistance Junction to Lead *3	R _{θJL}	27						30		
Junction Temperature	T _j	150								°C
Storage Temperature	T _{stg}	-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.	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007
Marking	M1	M2	M3	M4	M5	M6	M7

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■ Typical Characteristics

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

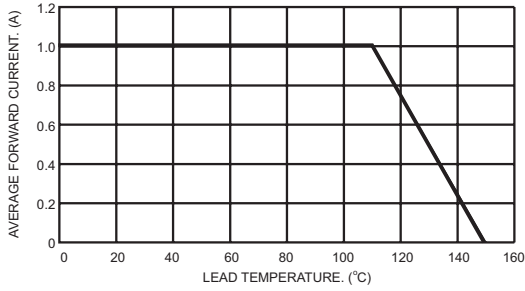


FIG.2- TYPICAL REVERSE CHARACTERISTICS

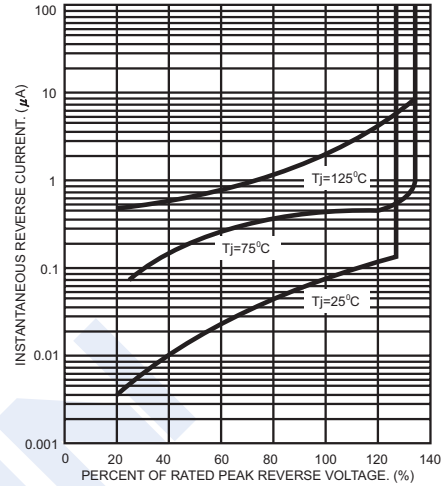


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

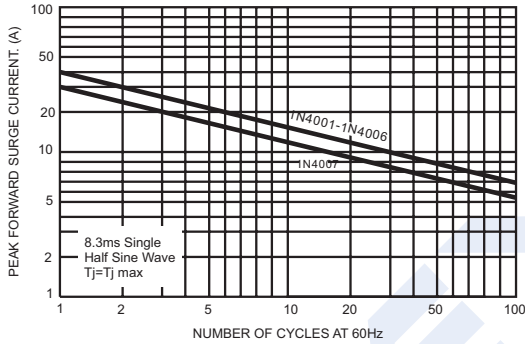


FIG.5- TYPICAL FORWARD CHARACTERISTICS

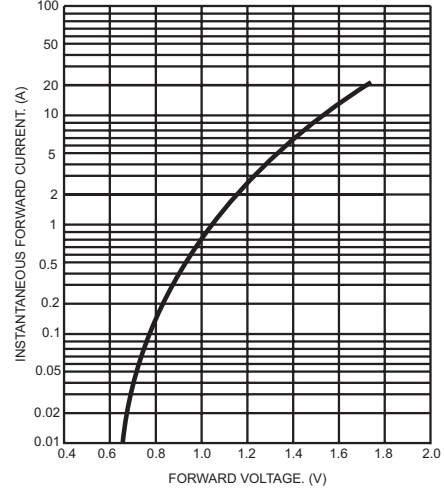


FIG.4- TYPICAL JUNCTION CAPACITANCE

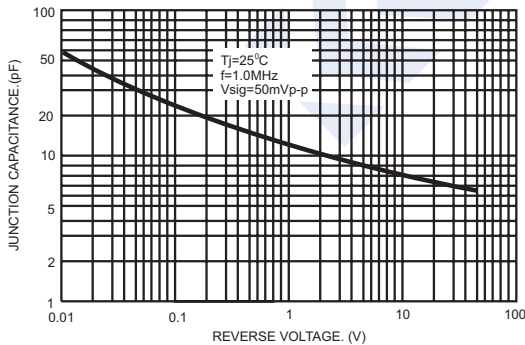


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

