

### GENERAL PURPOSE SILICON RECTIFIER VOLTAGE RANGE 50 TO 1000 Volts Current 1 Ampere

#### FEATURES

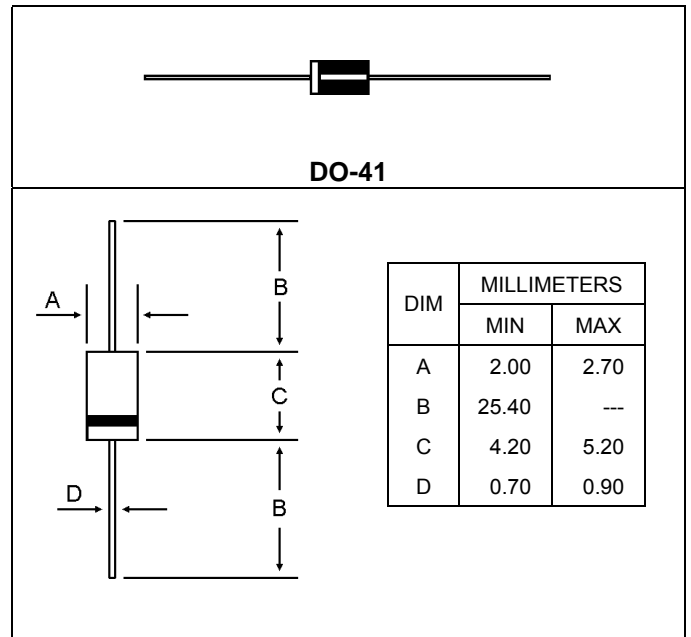
- \* Low cost construction
- \* Low forward voltage drop
- \* Low reverse leakage
- \* High forward surge current capability
- \* High temperature soldering guaranteed  
260 /10 seconds, 0.375"(9.5 mm) lead length  
at 5 lbs(2.3kg) tension

#### MECHANICAL DATA

- \* Case : Transfer Molded Plastic
- \* Epoxy: UL94V-O rate flame retardant
- \* Terminals : Solderable Per MIL-STD-202 Method 208
- \* Polarity : Color band denotes cathode end
- \* Mounting position: Any
- \* Weight : 0.012 ounce. 0.33 gram (approx)

Plating pb free

The marking is indicated by part no. + "M".  
ex: 1N4001M ~1N4007M



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- \* Rating at 25 ambient temperature unless otherwise specified
- \* Single phase, half wave. 60Hz, resistive or inductive load.
- \* For capacitive load derate current by 20 %

Characteristic	Symbol	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectifier Forward Current Per Leg $T_C=125$	$I_{F(AV)}$	1.0							A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfwave, single phase, 60Hz)	$I_{FSM}$	30							A
Maximum Instantaneous Forward Voltage ( $I_F=1.0$ Amp $T_C=25$ )	$V_F$	1.1							V
Maximum Instantaneous Reverse Current ( Rated DC Voltage, $T_C=25$ ) ( Rated DC Voltage, $T_C=100$ )	$I_R$	5.0 50							$\mu$ A
Typical Junction Capacitance (Reverse Voltage of 4 volts & $f=1$ MHz)	$C_j$	15							pF
Typical Thermal Resistance	$R_{\theta JA}$	50							/W
Operating and Storage Junction Temperature Range	$T_J, T_{stg}$	-65 to +175							

# 1N4001 thru 1N4007

FIG-1 FORWARD CURRENT DERATING CURVE

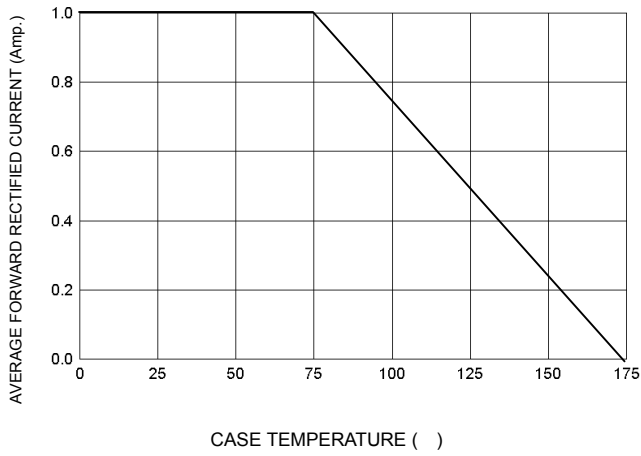


FIG-2 TYPICAL FORWARD CHARACTERISTICS

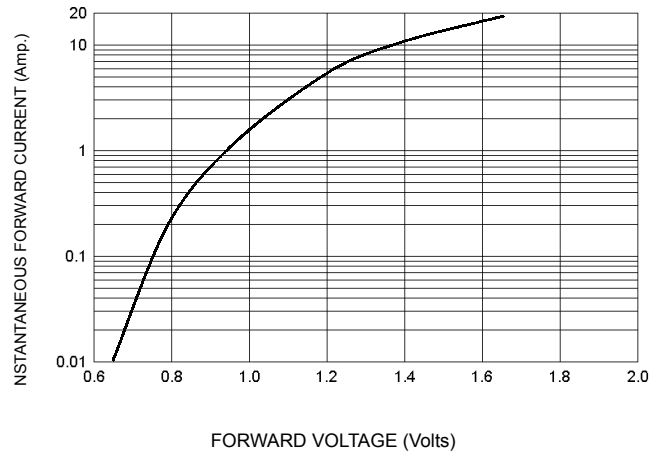


FIG-3 TYPICAL REVERSE CHARACTERISTICS

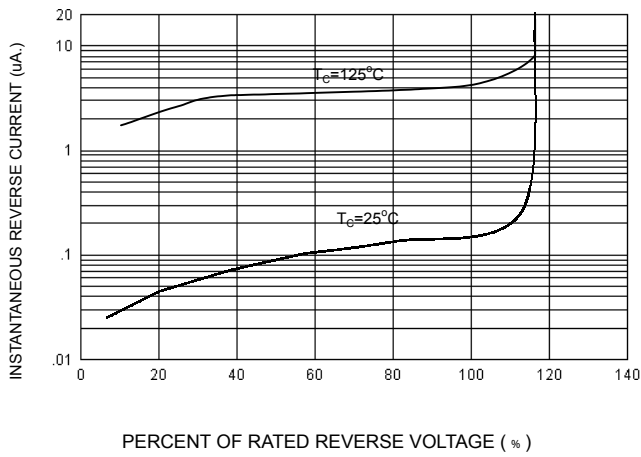


FIG-4 TYPICAL JUNCTION CAPACITANCE

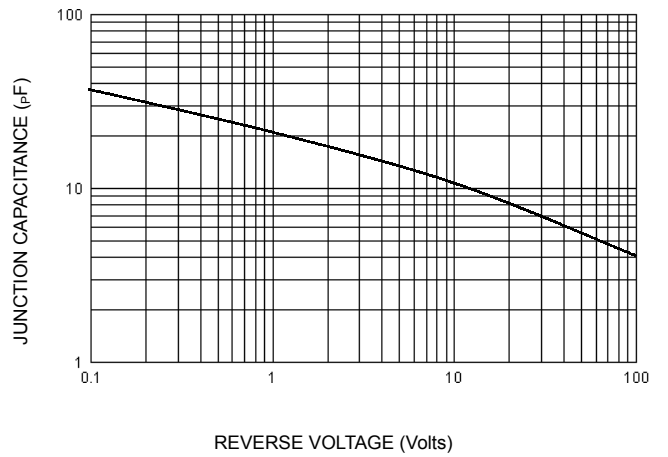


FIG-5 PEAK FORWARD SURGE CURRENT

