

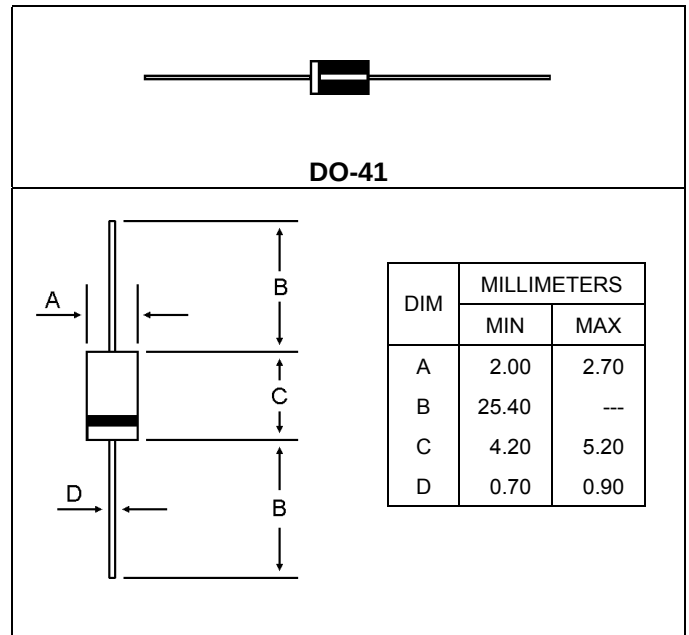
GENERAL PURPOSE SILICON RECTIFIER
VOLTAGE RANGE 50 TO 1000 Volts Current 1 Ampere

FEATURES

- *Low cost construction
- *Low forward voltage drop
- *Low reverse leakage
- *High forward surge current capability
- *High temperature soldering guaranteed
260°C/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)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

* Rating at 25°C 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 $T_C=125^{\circ}\text{C}$	$I_{F(AV)}$	1.0							A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage ($I_F=1.0$ Amp $T_C=25^{\circ}\text{C}$)	V_F	1.1							V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C=25^{\circ}\text{C}$) (Rated DC Voltage, $T_C=100^{\circ}\text{C}$)	I_R	5.0 50							μA
Typical Junction Capacitance (Reverse Voltage of 4 volts & $f=1$ MHz)	C_j	15							pF
Typical Thermal Resistance	$R_{\theta JA}$	50							$^{\circ}\text{C/W}$
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +175							$^{\circ}\text{C}$

1N4001 thru 1N4007

FIG-1 FORWARD CURRENT DERATING CURVE

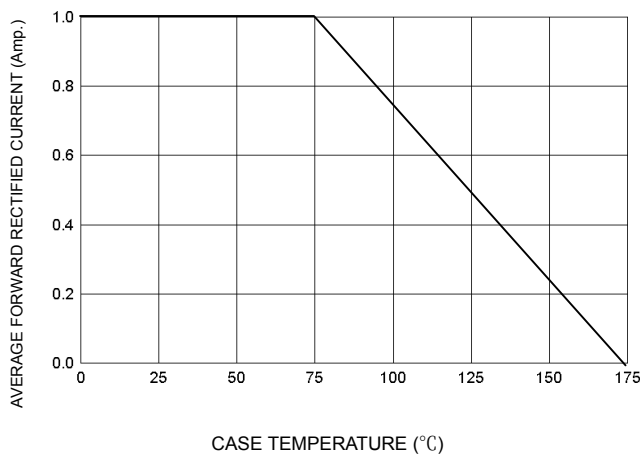


FIG-2 TYPICAL FORWARD CHARACTERISTICS

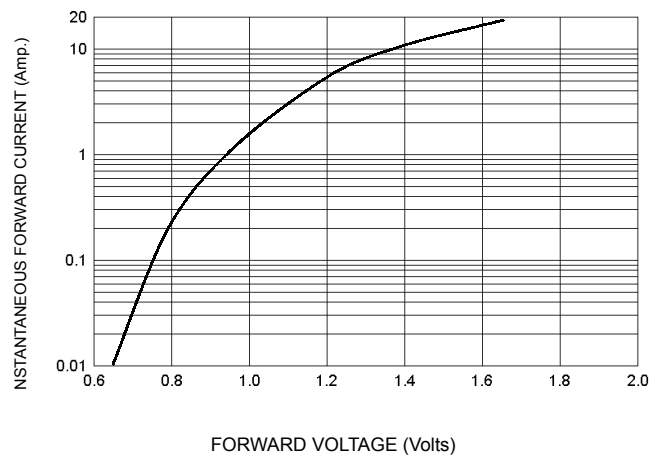


FIG-3 TYPICAL REVERSE CHARACTERISTICS

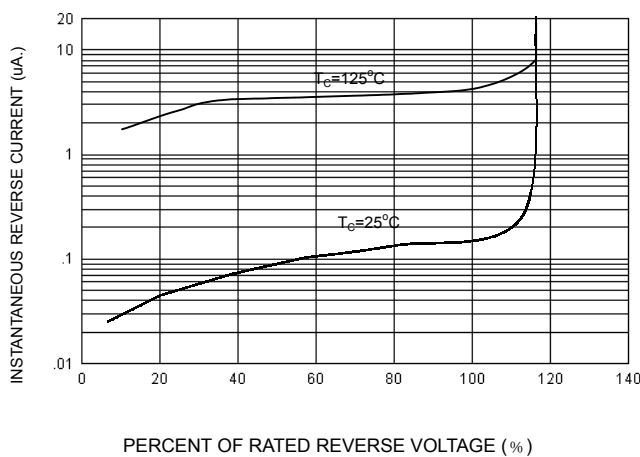


FIG-4 TYPICAL JUNCTION CAPACITANCE

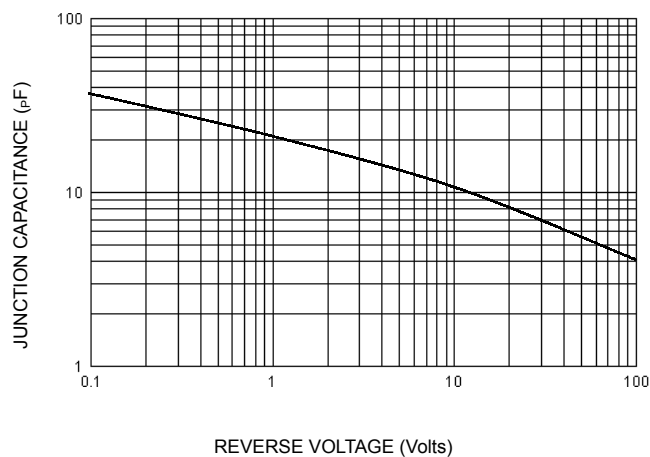


FIG-5 PEAK FORWARD SURGE CURRENT

