

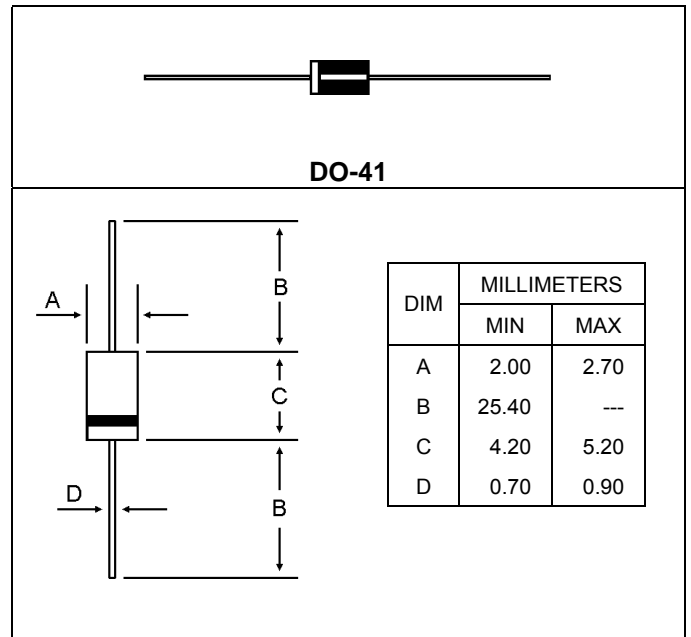
GENERAL PURPOSE SILICON RECTIFIER VOLTAGE RANGE 50 TO 1000 Volts Current 1 Ampere

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)



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							μ 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

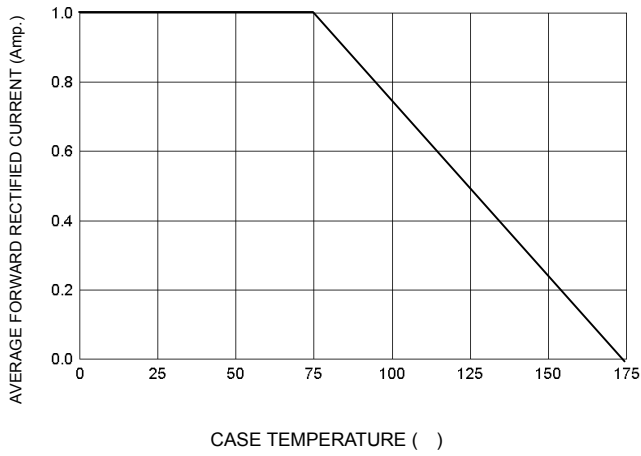


FIG-2 TYPICAL FORWARD CHARACTERISTICS

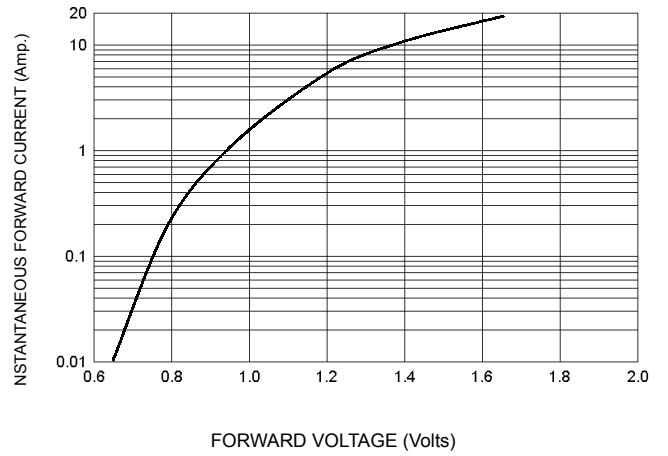


FIG-3 TYPICAL REVERSE CHARACTERISTICS

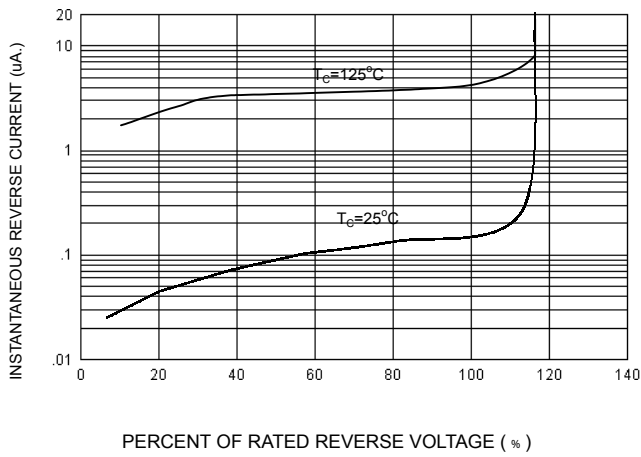


FIG-4 TYPICAL JUNCTION CAPACITANCE

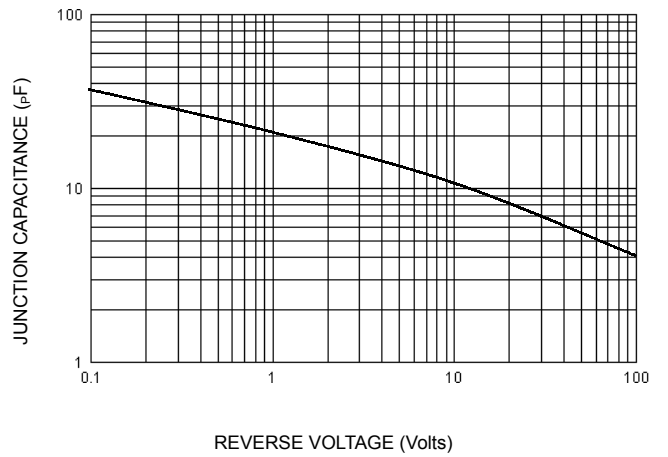


FIG-5 PEAK FORWARD SURGE CURRENT

