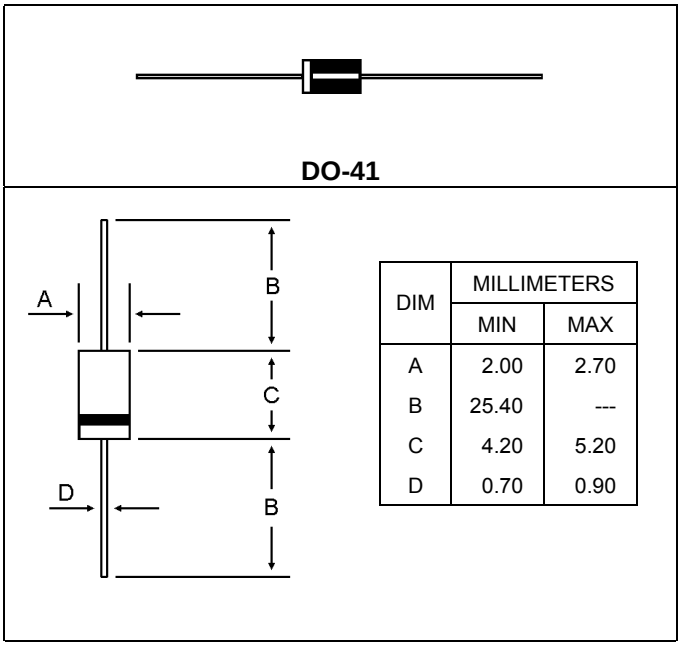
MOSPEC

1N4001 THRU 1N4007

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)



DIM	MILLIMETERS	
	MIN	MAX
A	2.00	2.70
B	25.40	---
C	4.20	5.20
D	0.70	0.90

MAXIMUM RATINGS AND ELECTRICAL CHARATERISTICS

* 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 halfware, 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							uA
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

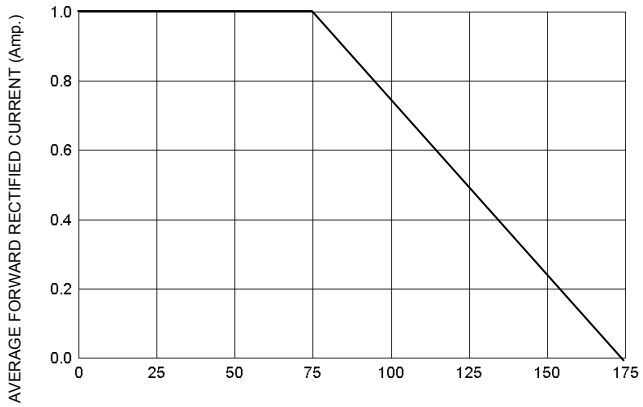


FIG-2 TYPICAL FORWARD CHARACTERISITICS

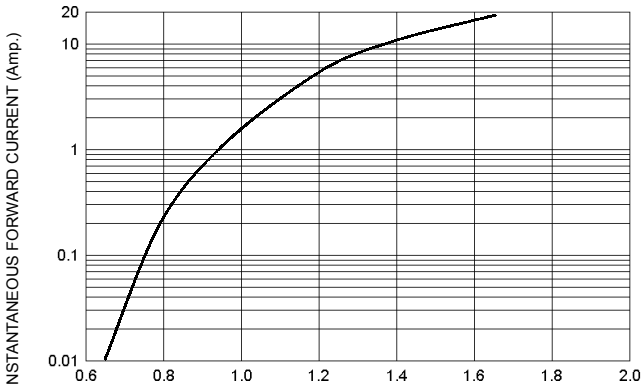


FIG-3 TYPICAL REVERSE CHARACTERISTICS

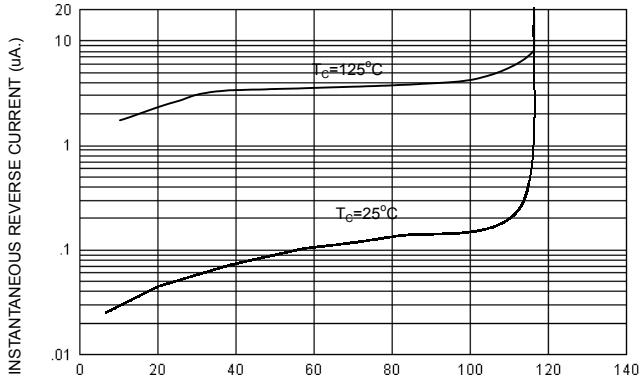


FIG-4 TYPICAL JUNCTION CAPACITANCE

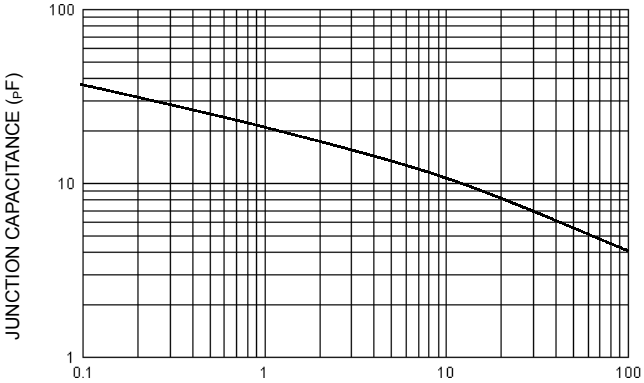


FIG-5 PEAK FORWARD SURGE CURRENT