沛倫股份有限公司
Compact Technology Corp.

1N4001 thru 1N4007

PLASTIC SILICON RECTIFIERS

REVERSE VOLTAGE **- 50** to **1000** Volts
FORWARD CURRENT **- 1.0** Ampere

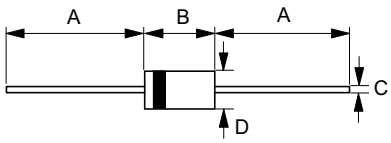
FEATURES

- Low cost
- Diffused junction
- Low forward voltage drop
- Low reverse leakage current
- High current capability
- The plastic material carries UL recognition 94V-0

MECHANICAL DATA

- Case : JEDEC DO-41 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.012 ounces, 0.34 grams
- Mounting position : Any

DO-41



	DO-41	
Dim.	Min.	Max.
A	25.4	-
B	4.20	5.20
C	0.70 ∅	0.90 ∅
D	2.00 ∅	2.70 ∅
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

CHARACTERISTICS	SYMBOL	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T_A=75℃	$I_{(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)	I_{FSM}	30							A
Maximum forward Voltage at 1.0A DC	V_F	1.1							V
Maximum DC Reverse Current @T_J=25℃ at Rated DC Blocking Voltage @T_J=100℃	I_R	5 50							uA
Typical Junction Capacitance (Note 1)	C_J	15							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	35							℃/W
Operating Temperature Range	T_J	-55 to +150							℃
Storage Temperature Range	T_{STG}	-55 to +150							℃

NOTES : 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2.Thermal Resistance Junction to Ambient.
3.Thermal Resistance Junction to Case at 9.5mm Lead Length.PCB Mounted JEDEC Registered Value.

RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

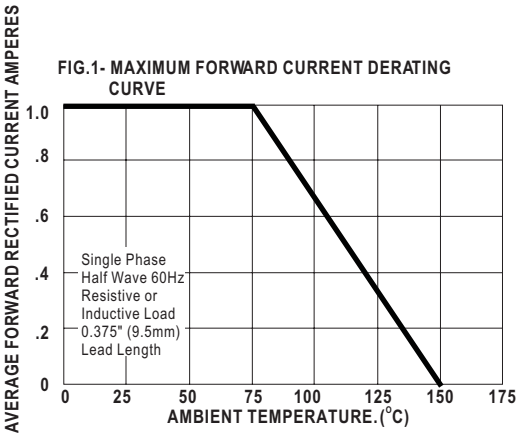


FIG.2- TYPICAL FORWARD CHARACTERISTICS

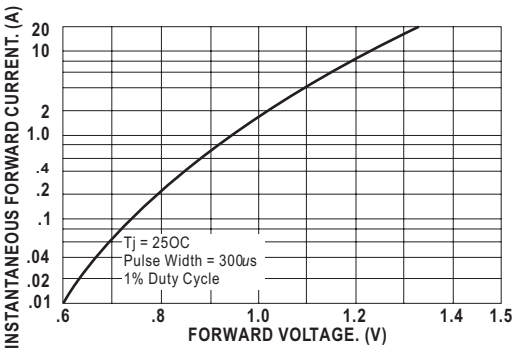


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

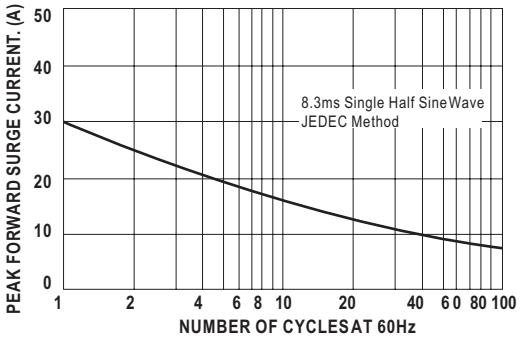


FIG.4- TYPICAL JUNCTION CAPACITANCE

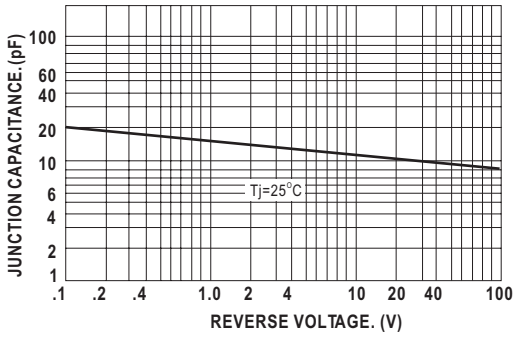
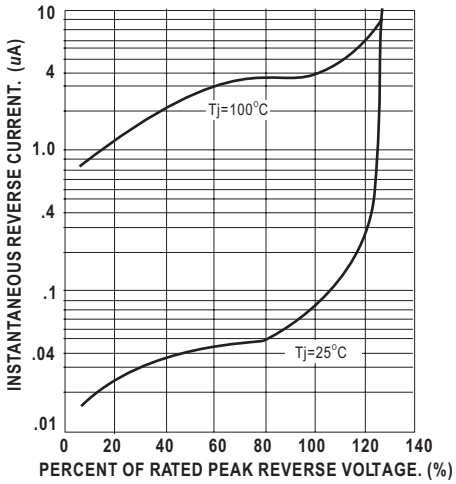



FIG.5- TYPICAL REVERSE CHARACTERISTICS