

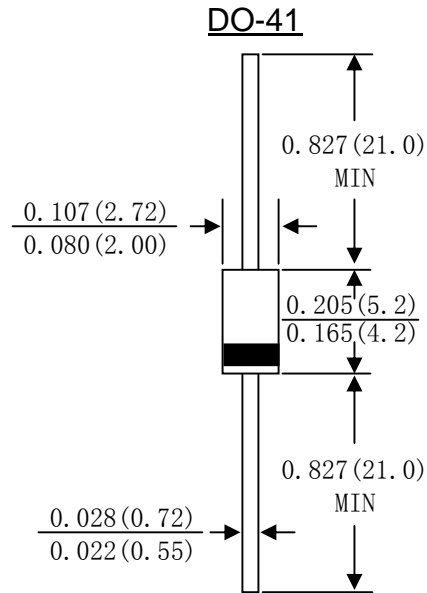
GENERAL PURPOSE SILICON RECTIFIER

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94-0
- Construction utilizes void-free molded plastic technique
- low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:250°C/10seconds, 0.375"(9.5mm) lead length,5lbs. (2.3kg) tension

Mechanical Data

- **Case:** JEDEC DO-41 molded plastic bldy
- **Terminals:** Plated leads solderable per MIL-STD-750, Method 2026
- **Polarity:** Color band dentes cathode end
- **Mounting Position:** Any



Dimensions in inches and (millimeters)

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%.

Type Number	SYMBOL	1N 4001	1N 4002	1N 4003	1N 4004	1N 4005	1N 4006	1N 4007	Units
Maximum recurrent peak reverse voltage	V_{RM}	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 rectified output current 0.375"(9.5mm) lead length at @TA=75°C	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0							A
Maximum instantaneous forward voltage at 1.0A	V_F	1.1							V
Maximum DC reverse current @TA=25°C	I_R	5.0							uA
At Rated DC blocking voltage @TA=100°C		50.0							
Typical junction capacitance (Note 1)	C_j	15.0							pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	50.0							°C/W
	$R_{\theta JL}$	25.0							
Maximum DC blocking voltage temperature	T_A	+150							°C
Operating junction and storage temperature range	T_j, T_{STG}	-65 to +175							°C

Note: 1. Measured at 1.0 MHz and applied reverse Voltage of 4.0V D.C

2. Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm) lead length, P.C.B mounted.

RATINGS AND CHARACTERISTIC CURVES 1N4001 THRU 1N4007

FIG. 1- FORWARD CURRENT DERATING CURVE

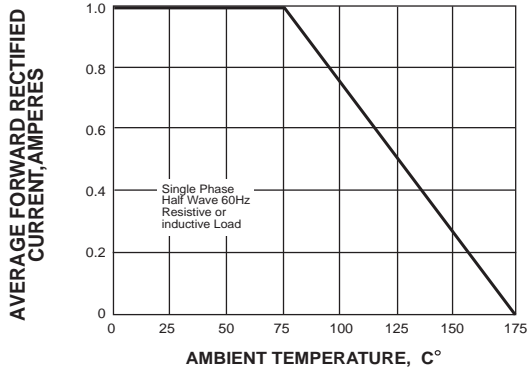


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

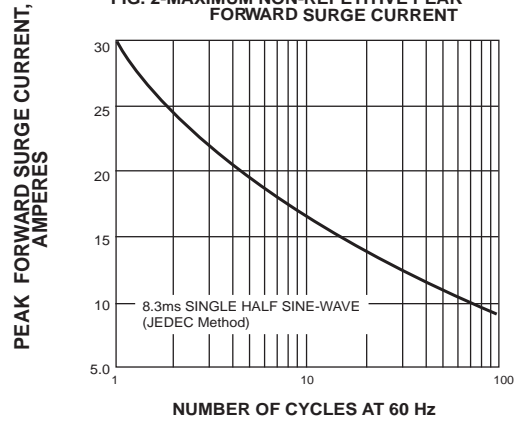


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

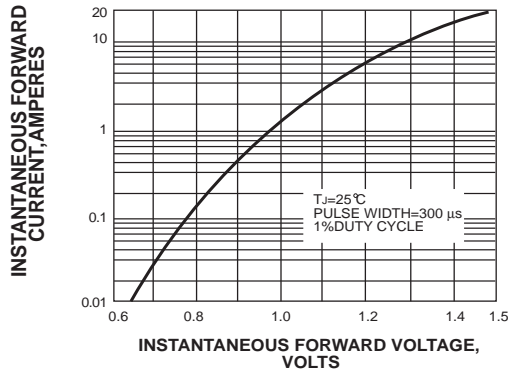


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

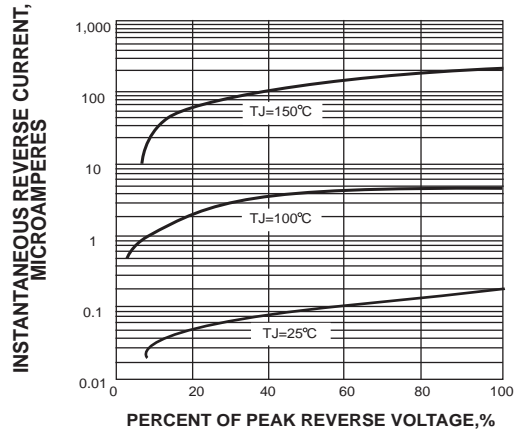


FIG. 5-TYPICAL JUNCTION CAPACITANCE

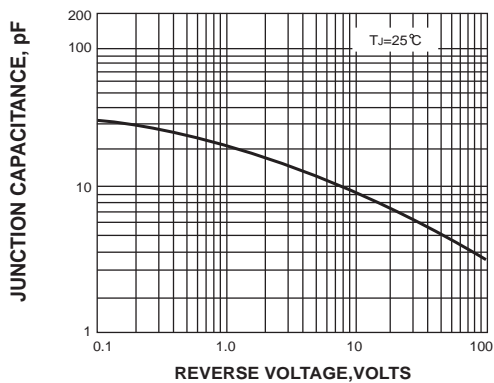
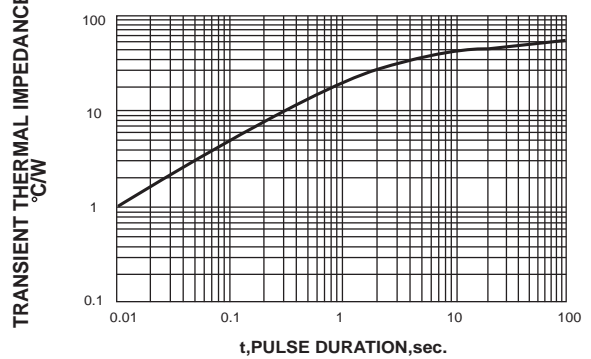
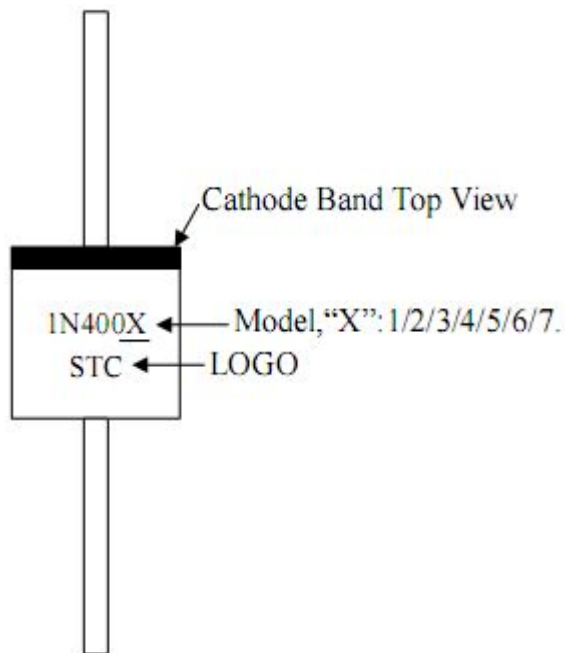


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



PRINTING INSTRUCTIONS



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