

General Purpose Plastic Rectifiers	Reverse Voltage: 50 to 1000V Forward Current: 1.0 Amp
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Features

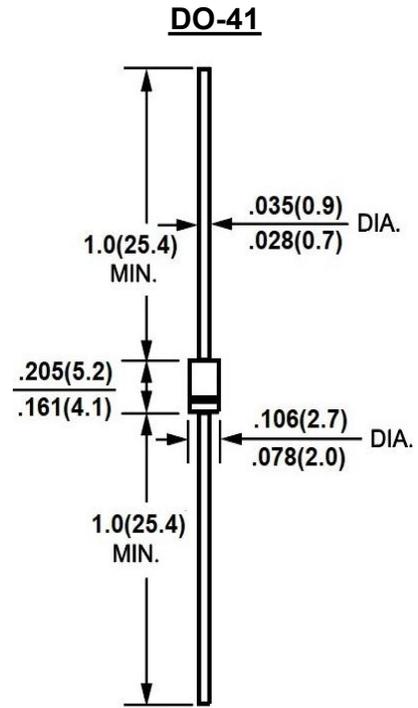
- Glass passivated chip junction
- High forward surge capability
- Low reverse leakage
- Low power loss
- High temperature soldering guaranteed
260°C/10 seconds at terminals.

Mechanical Data

- **Package:** DO-41, Molded plastic body
Molding compound meets UL 94 V-0 flammability rating
- **Terminals:** Tin plated leads, solderable per
MIL-STD-750, Method 2026
- **Polarity:** Color band denotes cathode end

Typical Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.


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%.

Parameter&Test Conditions	SYM.	1N 4001	1N 4002	1N 4003	1N 4004	1N 4005	1N 4006	1N 4007	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
Average rectified output current @60Hz sine wave, Resistance load, Ta =705°C (FIG.1)	I _{O(AV)}	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load	I _{FSM}	30							A
Maximum Thermal Resistance, Junction To Case (Note1)	R _{θJC}	50							°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to+150							°C

Electrical Characteristics (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions	SYM.	1N 4001	1N 4002	1N 4003	1N 4004	1N 4005	1N 4006	1N 4007	Unit
Maximum Instantaneous Forward Voltage IFM =1A	V _{FM}	1.1							V
Maximum DC reverse current at rated DC blocking voltage	I _R	5							μA
		100							
Typical junction capacitance(Note2)	C _J	8							pF

Notes:

1. Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length, PCB mounted.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. The typical data above is for reference only.

Rating and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED

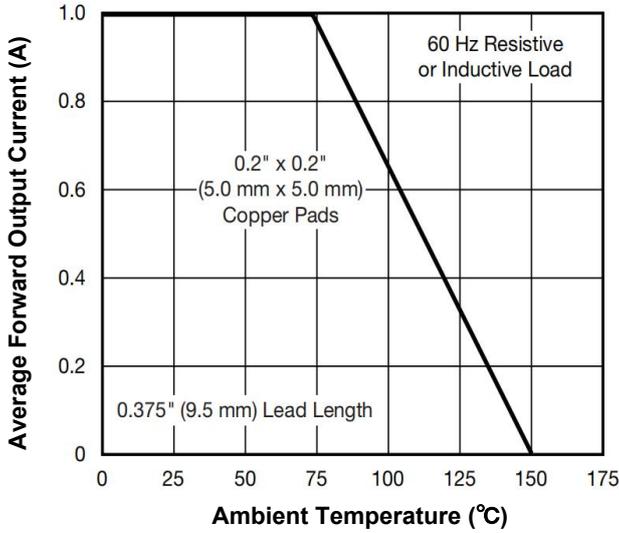


FIG. 2- -MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

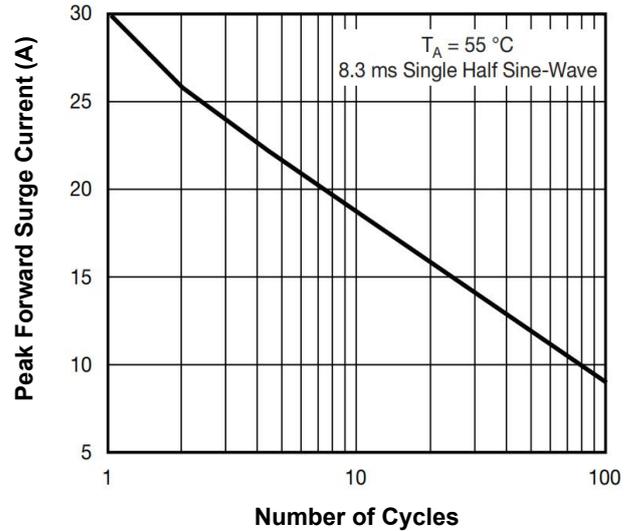


FIG. 3- TYPICAL FORWARD VOLTAGE

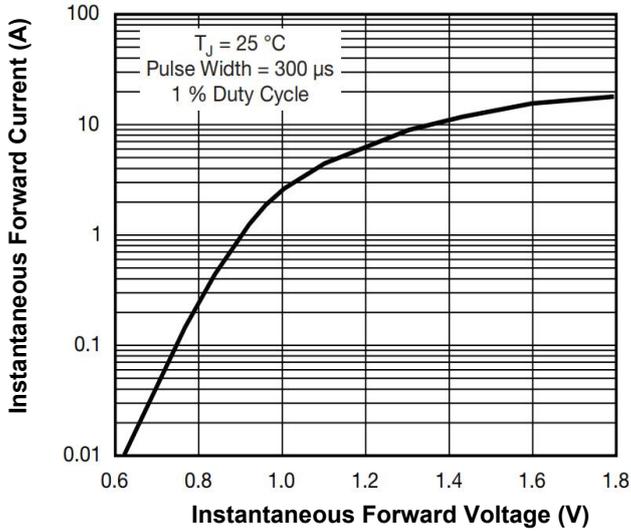
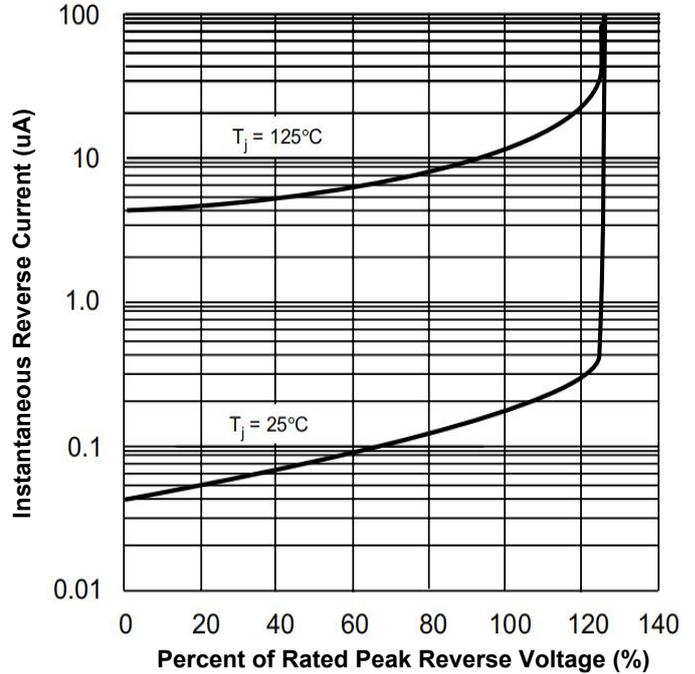


FIG. 4- TYPICAL REVERSE LEAKAGE



The curve above is for reference only.



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