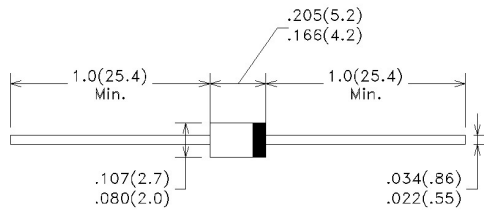


Package Outline Dimensions in mm (inches)

DO-41



1.0 A / 50 V to 1000 V

Features

- High reliability
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC

Typical Applications

- For use in general purpose rectification of power Supplies.

Mechanical Data

- Case:DO-41 Plastic Package
- Polarity:Color band denotes cathode end

Maximum ratings

Ratings at TA=25°C (unless otherwise specified)

Parameter	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	I _{F(AV)}	1.0							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	30							A
Storage temperature range	T _S	-55 ~ 150							°C
Operating Junction temperature range	T _J	-55 ~ 150							°C
Thermal Resistance (Note1)	R _{thJA}	60							°C /W

Electrical characteristics

Ratings at TA=25°C (unless otherwise specified)

Parameter	Test Conditions	Symbol	1N4001 thru 1N4007	Unit
Maximum forward voltage	I _F =1.0 A	V _F	1.0	V
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	I _R	5.0	μA
	TA=125°C		50	
Typical junction capacitance	4.0 V, 1 MHz	C _j	10	pF

Characteristics Curves

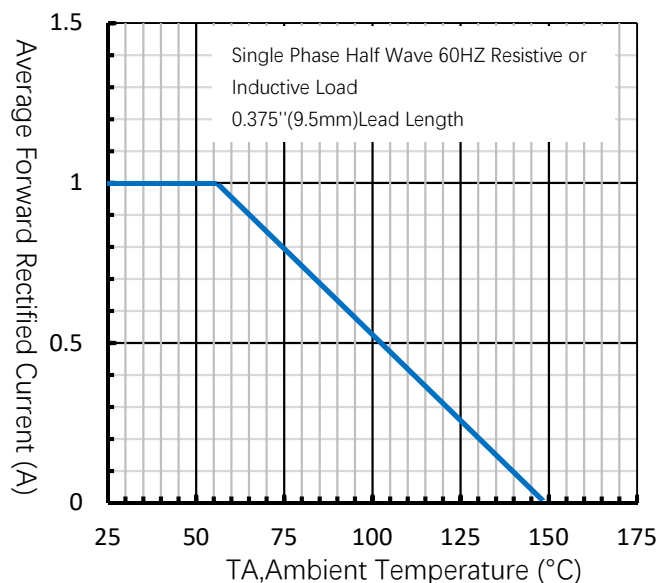


Fig.1 Forward Current Derating Curve

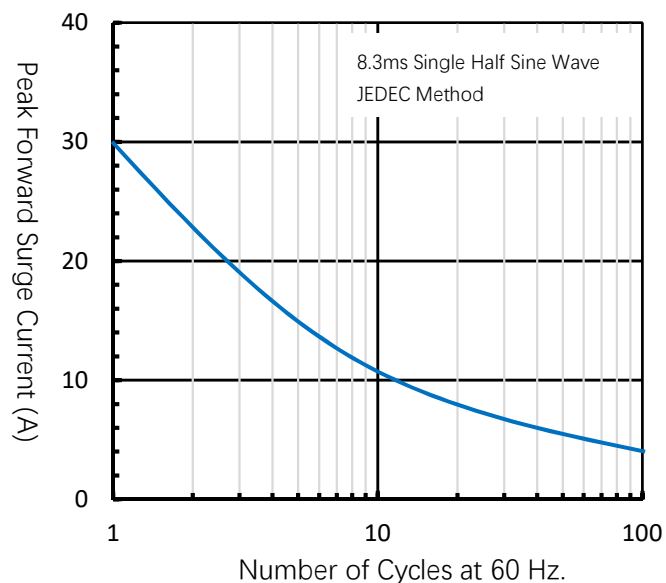


Fig.2 Forward Surge Current Capability

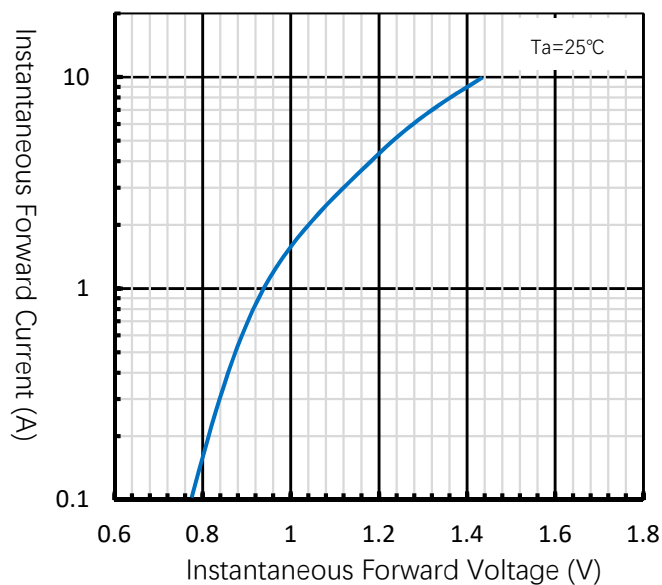


Fig. 3 Typical Forward Characteristic

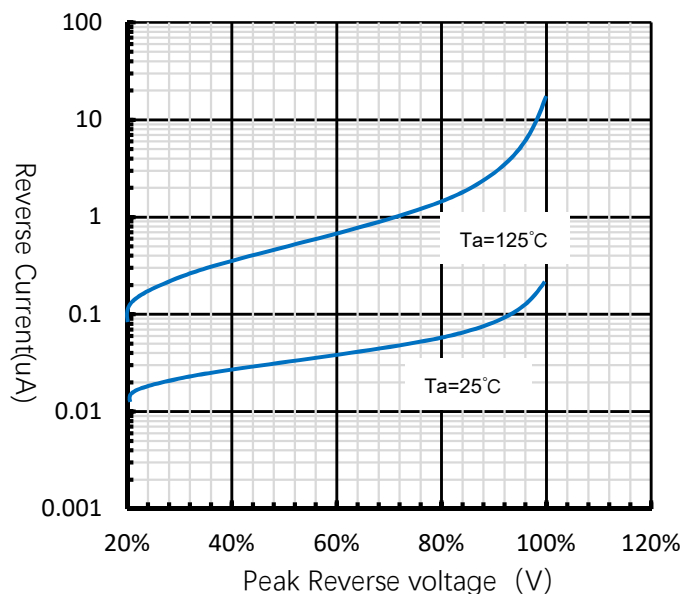


Fig. 4 Typical Reverse Characteristics