

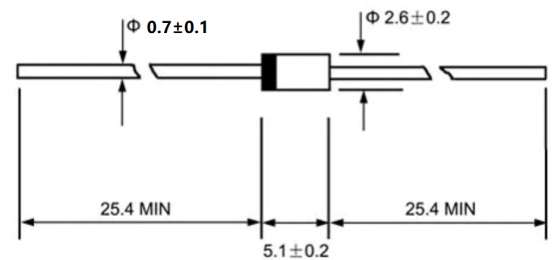


**VOLTAGE RANGE: 50 --- 1000 V**  
**CURRENT: 1.0 A**

**DO - 41**

### Features

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0



Dimensions in millimeters

### Mechanical Data

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

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

Parameter	Symbol	PR 1001	PR 1002	PR 1003	PR 1004	PR 1005	PR 1006	PR 1007	UNITS
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 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	$I_{FSM}$	30.0							A
Maximum instantaneous forward voltage @ 1.0 A	$V_F$	1.2							V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	$I_R$	5.0 100.0							$\mu A$
Maximum reverse recovery time (Note1)	$t_{rr}$	150				250	500		ns
Typical junction capacitance (Note2)	$C_J$	18							pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	55							$^\circ C/W$
Operating junction temperature range	$T_J$	- 55---- +150							$^\circ C$
Storage temperature range	$T_{STG}$	- 55---- +150							$^\circ C$

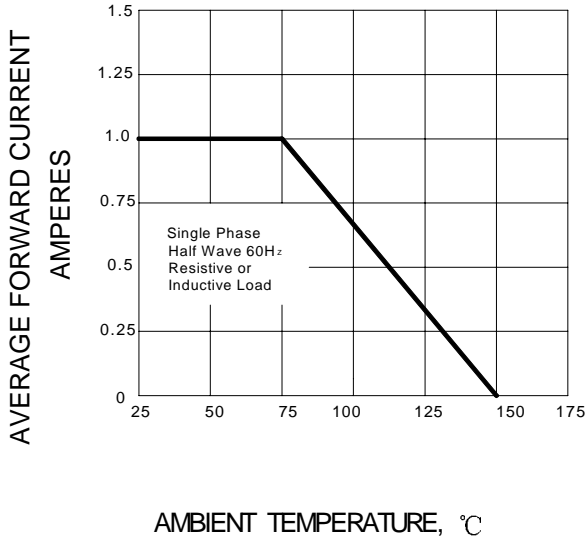
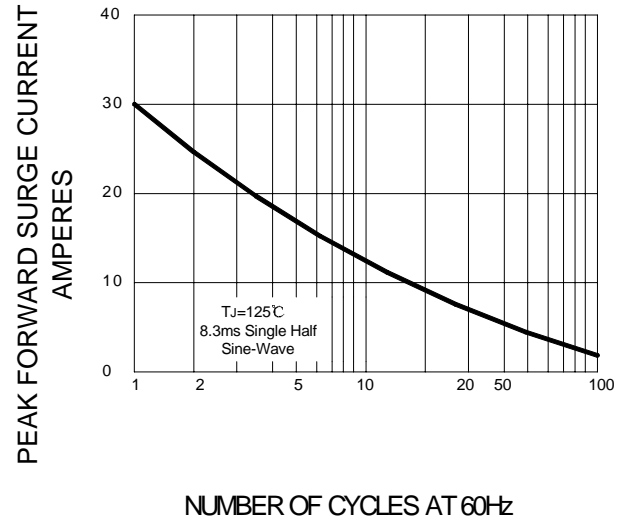
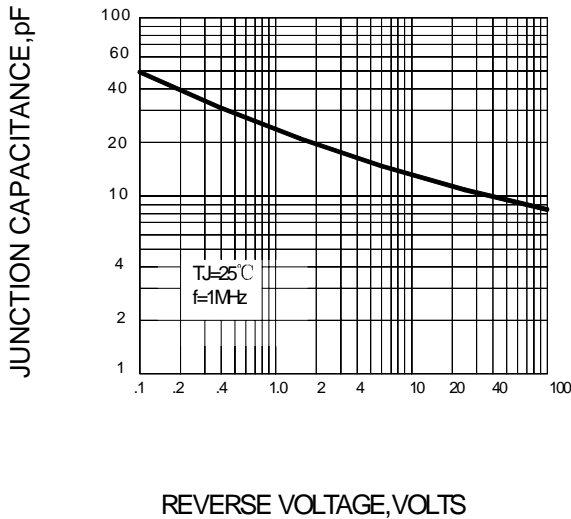
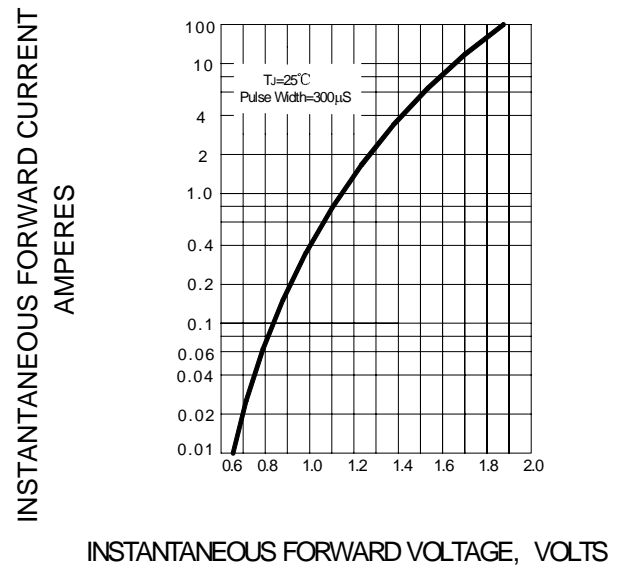
NOTE:1. Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $t_{rr}=0.25A$ .

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance from junction to ambient.



## Ratings AND Characteristic Curves

**FIG.1 – FORWARD CURRENT DERATING CURVE**

**FIG.2 – PEAK FORWARD SURGE CURRENT**

**FIG.3 – TYPICAL JUNCTION CAPACITANCE**

**FIG.4 – TYPICAL FORWARD CHARACTERISTICS**


PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
DO-41	5000/AMMO	50000	42X28X31	14.00	12.00