

# BYW72-BYW76

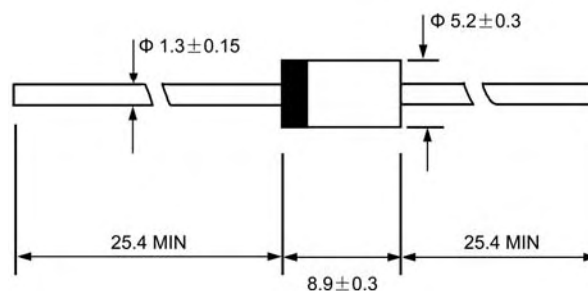
Fast Recovery Rectifiers

**VOLTAGE RANGE: 200 --- 600 V**

**CURRENT: 3.0 A**



## DO - 27



Dimensions in millimeters

## 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

## Mechanical Data

- ◇ Case: JEDEC DO-27, molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces, 1.15 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%.

		BYW72	BYW73	BYW74	BYW75	BYW76	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	200	300	400	500	600	V
Maximum RMS voltage	$V_{RMS}$	140	210	280	350	420	V
Maximum DC blocking voltage	$V_{DC}$	200	300	400	500	600	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ\text{C}$	$I_{F(AV)}$	3.0					A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	$I_{FSM}$	200.0					A
Maximum instantaneous forward voltage @ 3.0 A	$V_F$	1.1					V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	10.0 100.0					$\mu\text{A}$
Maximum reverse recovery time (Note1)	$t_{rr}$	200					ns
Typical junction capacitance (Note2)	$C_J$	32					pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	22					$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	- 55 --- +150					$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 55 --- +150					$^\circ\text{C}$

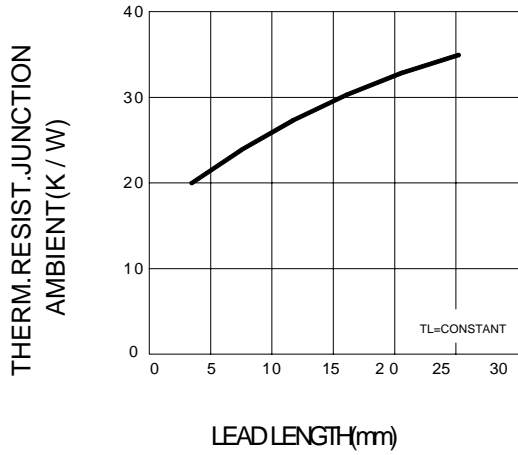
NOTE: 1. Measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $t_{rr}=0.25\text{A}$ .

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

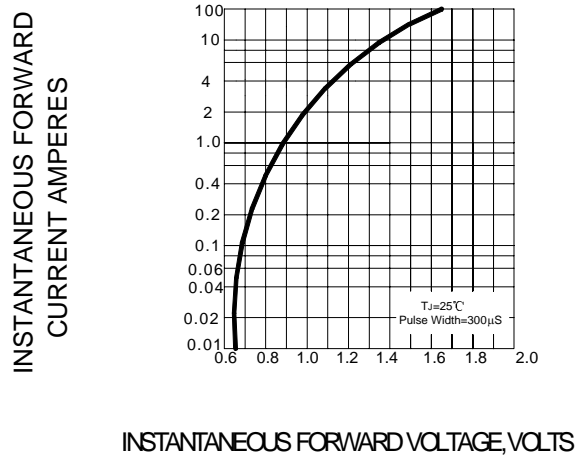
3. Thermal resistance from junction to ambient.

### Ratings AND Characteristic Curves

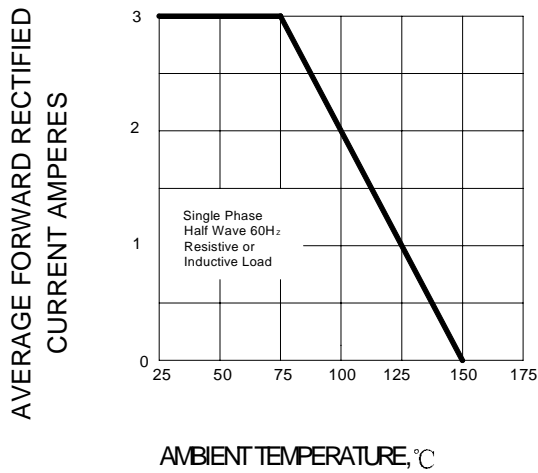
**FIG.1 -MAX.THERMAL RESISTANCE VS.LEAD LENGTH**



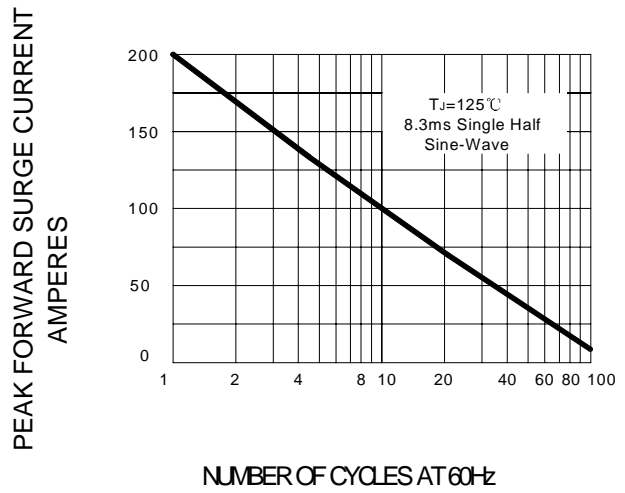
**FIG.2 -TYPICAL FORWARD CHARACTERISTIC**



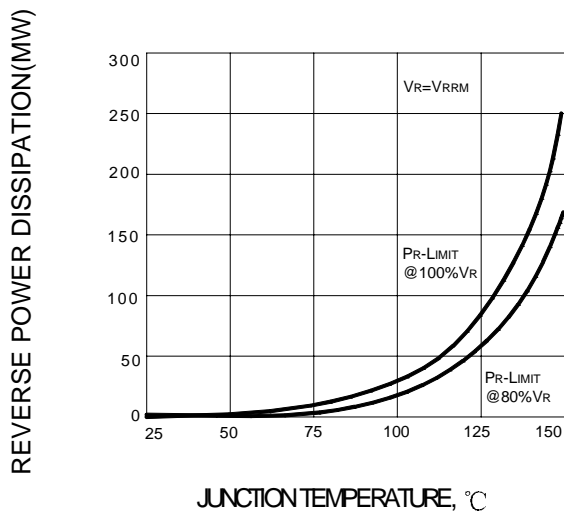
**FIG.3 -FORWARD DERATING CURVE**



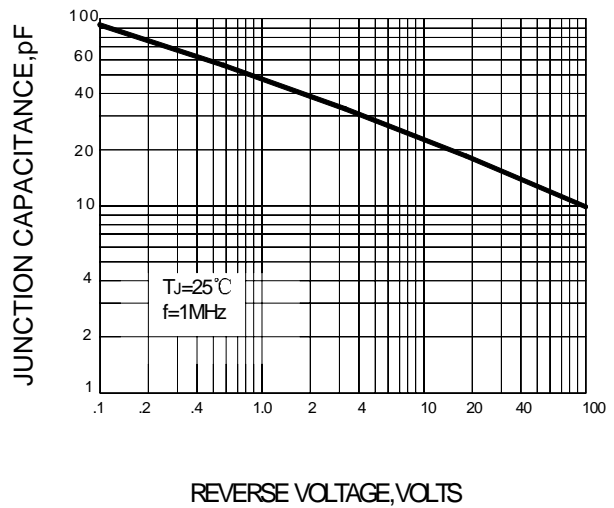
**FIG.4-PEAK FORWARD SURGE CURRENT**



**FIG.5- MAX.REVERSE POWER DISSIPATION VS. JUNCTION TEMPERATURE**



**FIG.6-TYPICAL JUNCTION CAPACITANCE**



## Ratings AND Characteristic Curves

**FIG.8 - THERMAL RESPONSE**
