

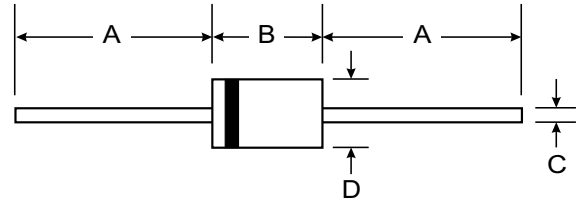
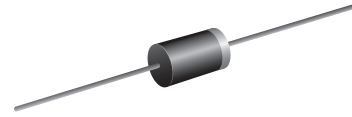
**VOLTAGE RANGE: 50 - 600V**  
**CURRENT: 2.0 A**

### Features

- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with alcohol, Isopropanol and similar solvents

### Mechanical Data

- Case : DO-15 Molded plastic
- Epoxy : UL94V-O rate flame retardant
- Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 0.465 gram



DO-15		
Dim	Min	Max
A	25.40	—
B	5.50	7.62
C	0.686	0.889
D	2.60	3.60
All Dimensions in mm		

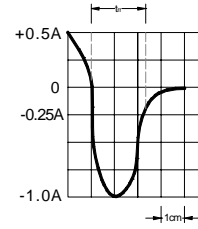
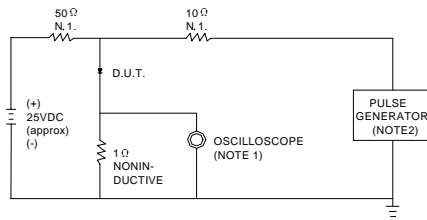
### Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

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

Characteristic	Symbol	BYV27-50	BYV27-100	BYV27-150	BYV27-200	BYV27-300	BYV27-400	BYV27-600	Unit	
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	600	V	
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	420	V	
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400	600	V	
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ\text{C}$	$I_{F(AV)}$	2.0							A	
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	$I_{FSM}$	50.0							40.0	A
Maximum instantaneous forward voltage @ $I_F=I_{F(AV)}$	$V_F$	0.98			1.05		1.25		V	
Maximum reverse current at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	5.0							100.0	$\mu\text{A}$
Maximum reverse recovery time (Note1)	$t_{rr}$	25				50				ns
Typical junction capacitance (Note2)	$C_J$	62							pF	
Typical thermal resistance (Note3)	$R_{\theta JA}$	100							$^\circ\text{C}/\text{W}$	
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  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$ .  
 2. Measured at 1.0MHz and applied reverse voltage of 4.1V DC.  
 3. Thermal resistance from junction to ambient.

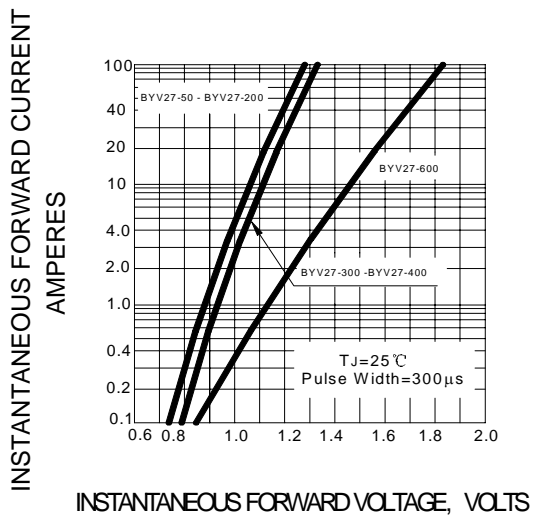
**FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**



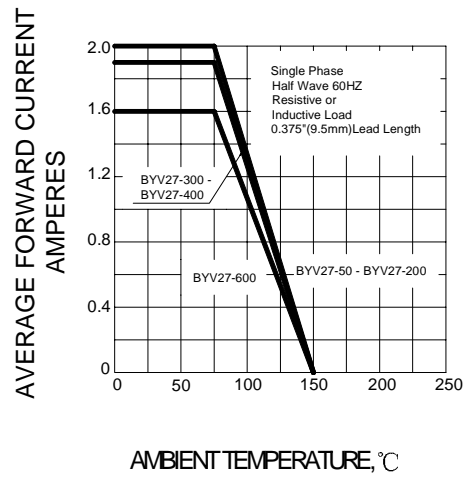
NOTES: 1. RISE TIME = 7ns MAX INPUT IMPEDANCE = 1MΩ, 22pF.  
 2. RISE TIME = 10ns MAX SOURCE IMPEDANCE = 50 Ω.

SET TIME BASE FOR 10 ns/cm

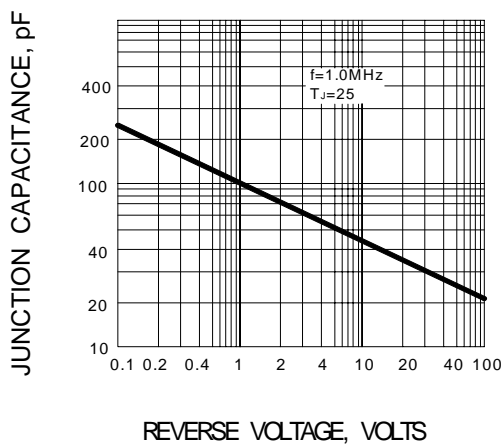
**FIG.2 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.3 – FORWARD DERATING CURVE**



**FIG.4 – TYPICAL JUNCTION CAPACTANCE**



**FIG.5 – PEAK FORWARD SURGE CURRENT**

