

# BYW32 - BYW36

**PRV : 200 - 600Volts**  
**Io : 2.0 Amperes**

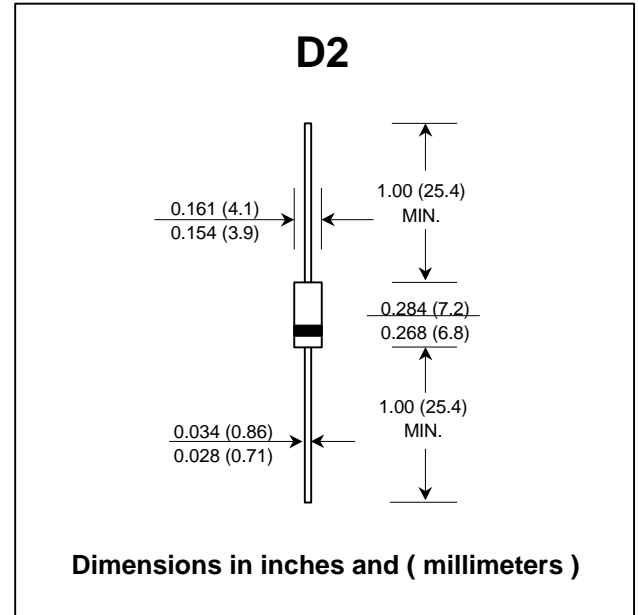
## FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

## MECHANICAL DATA :

- \* Case : D2 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

# FAST RECOVERY RECTIFIER DIODES



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

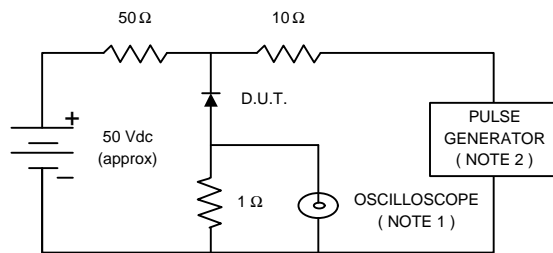
RATING	SYMBOL	BYW32	BYW33	BYW34	BYW35	BYW36	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	200	300	400	500	600	V
Maximum Maximum RMS voltage	$V_{RMS}$	140	210	280	350	420	V
Maximum DC blocking voltage	$V_{DC}$	200	300	400	500	600	V
Maximum Average Forward Current 0.375" (9.5mm) Lead Length at $T_a=55^{\circ}C$	$I_{F(AV)}$	2.0					A
Maximum Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load	$I_{FSM}$	40					A
Maximum Instantaneous Forward Voltage at 2.0A	$V_F$	1.2					V
Maximum DC reverse current at rated DC blocking voltage	$I_R$	5.0					$\mu A$
Typical Reverse Recovery Time (1)	$T_{rr}$	200					$\mu s$
Thermal Resistance - Junction to Ambient (2)	$R_{\theta JA}$	100					C/W
Junction Temperature Range	$T_J$	- 65 to + 175					$^{\circ}C$
Storage Temperature Range	$T_{STG}$	- 65 to + 200					$^{\circ}C$

### Notes :

- (1) Test Conditions :  $I_F = 0.5 A$  to  $I_R = 1 A$  ; measured at  $I_{rr} = 0.25 A$
- (2) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

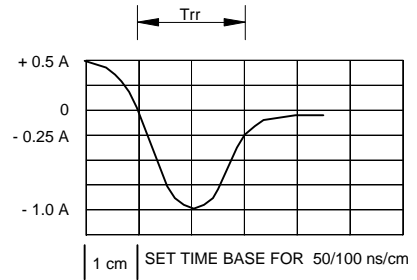
## RATING AND CHARACTERISTIC CURVES ( BYW32 - BYW36 )

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

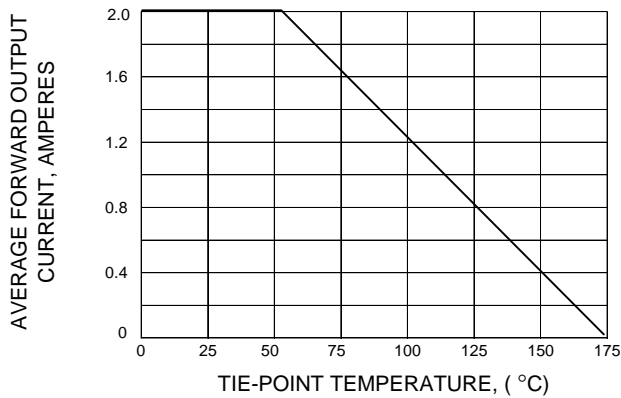


NOTES :

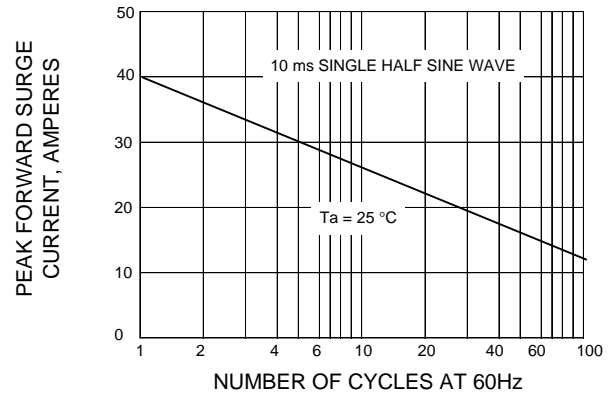
1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.
2. Rise time = 10 ns max., Source Impedance = 50 ohms.
3. All Resistors = Non-inductive Types.



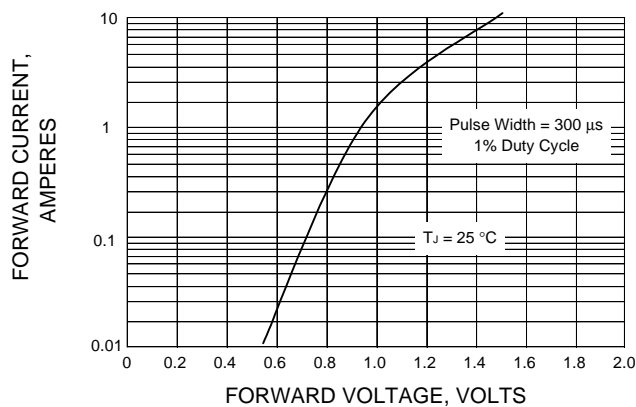
**FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

