

# BYW27-50 - BYW27-1000 SILICON RECTIFIERS

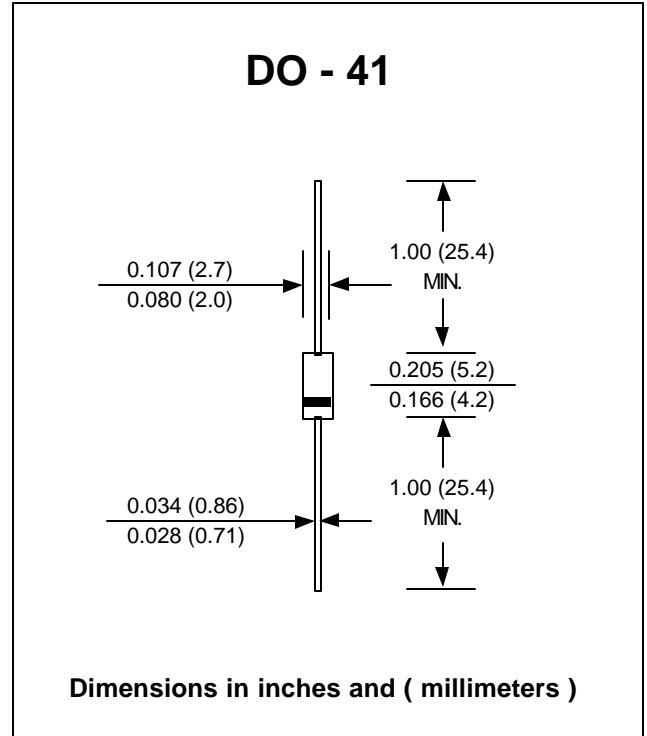
**PRV : 50 - 1000 Volts**  
**Io : 1.0 Amperes**

## FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop

## MECHANICAL DATA :

- \* Case : DO-41 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 : 0.339 gram



## 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	BYW 27-50	BYW 27-100	BYW 27-200	BYW 27-400	BYW 27-600	BYW 27-800	BYW 27-1000	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Current 0.375" (9.5mm) Lead Length $T_a = 70^\circ C$	$I_F$	1.0							Amp.
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	50							Amps.
Maximum Forward Voltage at $I_F = 1.0$ Amp.	$V_F$	1.0							Volts
Maximum DC Reverse Current $T_a = 25^\circ C$ at rated DC Blocking Voltage $T_a = 100^\circ C$	$I_R$	0.2							$\mu A$
	$I_{R(H)}$	25							$\mu A$
Typical Junction Capacitance (Note1)	$C_J$	30							pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	50							$^\circ C/W$
Junction Temperature Range	$T_J$	- 65 to + 175							$^\circ C$
Storage Temperature Range	$T_{STG}$	- 65 to + 175							$^\circ C$

### Notes :

- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
- (2) Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.

**RATING AND CHARACTERISTIC CURVES ( BYW27-50 - BYW27-1000 )**

