

# BYV26A - BYV26G

## VERY FAST SOFT-RECOVERY AVALANCHE RECTIFIER DIODES

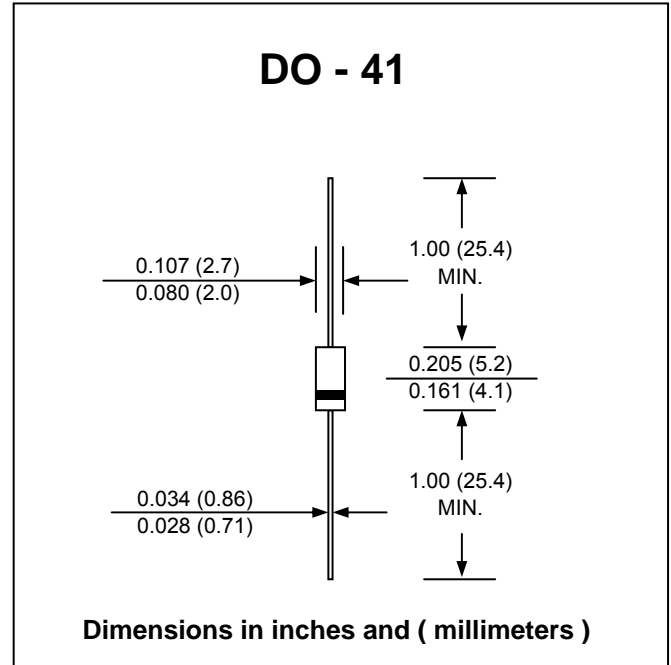
**PRV : 200 - 1400 Volts**  
**Io : 1.0 Ampere**

### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Fast switching for high efficiency
- \* Pb / RoHS Free

### 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.

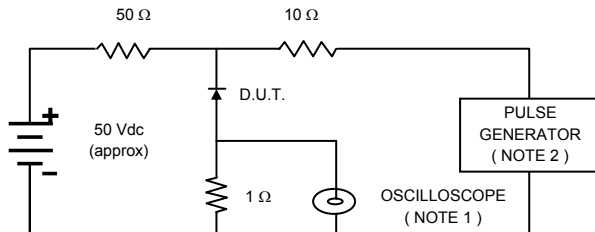
RATING	SYMBOL	BYV26A	BYV26B	BYV26C	BYV26D	BYV26E	BYV26G	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	200	400	600	800	1000	1400	V
Maximum Continuous Reverse Voltage	$V_R$	200	400	600	800	1000	1400	V
Minimum Reverse Avalanche Breakdown Voltage @ 100 $\mu$ A	$V_{(BR)R}$	300	500	700	900	1100	1500	V
Maximum Average Forward Current ( Note 1 )	$I_{F(AV)}$	1.0						A
Maximum Non-Repetitive Peak Forward Current	$I_{FSM}$	30						A
Maximum Repetitive Peak Forward Current ( Ttp = 85 °C )	$I_{FRM}$	10						A
Maximum Forward Voltage at 1.0 Amp. ; $T_J = 25\text{ }^\circ\text{C}$ $T_J = 175\text{ }^\circ\text{C}$	$V_F$	2.5						V
	$V_F$	1.3						V
Maximum Reverse Current $T_J = 25\text{ }^\circ\text{C}$ at Reverse Voltage $T_J = 150\text{ }^\circ\text{C}$	$I_R$	5.0						$\mu$ A
	$I_{R(H)}$	150						$\mu$ A
Maximum Reverse Recovery Time ( Note 2 )	$T_{rr}$	30			75		150	ns
Typical Thermal Resistance - Junction to Ambient	$R_{\theta JA}$	100						K/W
Non repetitive reverse avalanche energy at $I_{(BR)R} = 1\text{ A}$ , inductive load	$E_R$	10						mJ
Junction and Storage Temperature Range	$T_J, T_{STG}$	- 55 to + 175						$^\circ\text{C}$

#### Notes :

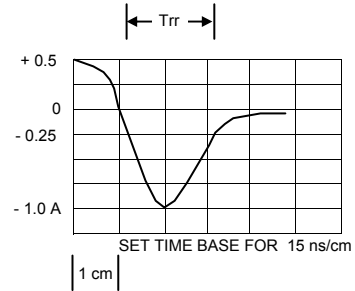
- ( 1 ) Ttp = 85 °C , lead length 10 mm.
- ( 2 ) Measured with  $I_F = 0.5\text{ Amp}$ ,  $I_R = 1.0\text{A}$ ,  $I_{rr} = 0.25\text{A}$ .

## RATING AND CHARACTERISTIC CURVES ( BYV26A - BYV26G )

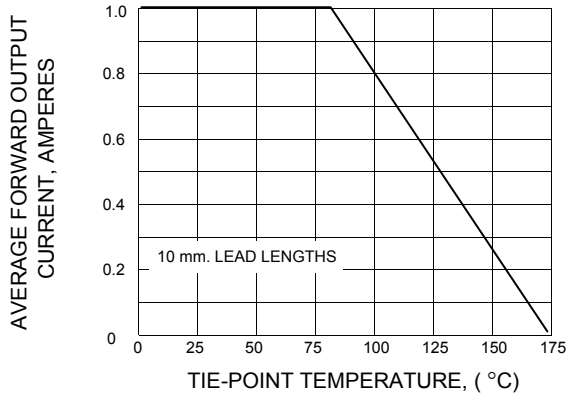
**FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



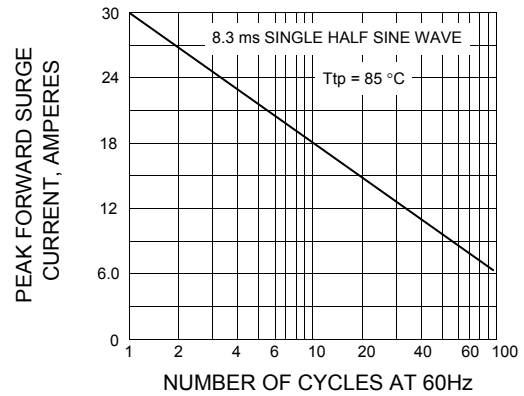
NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.  
 2. Rise time = 10 ns max., Source Impedance = 50 ohms.  
 3. All Resistors = Non-inductive Types.



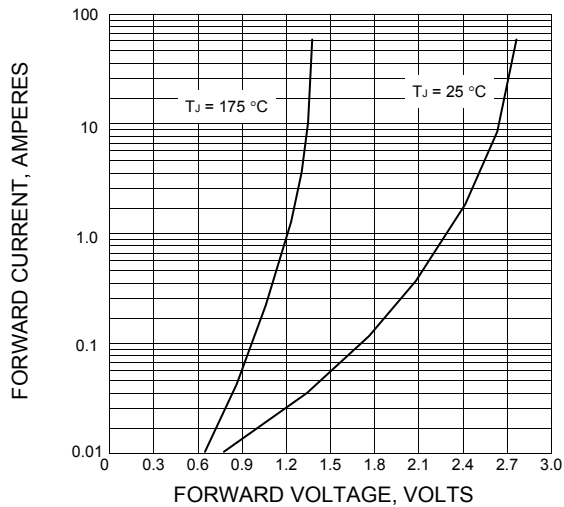
**FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

