

# UG2A - UG2D

**PRV : 50 ~ 200 Volts**  
**Io : 2.0 Ampere**

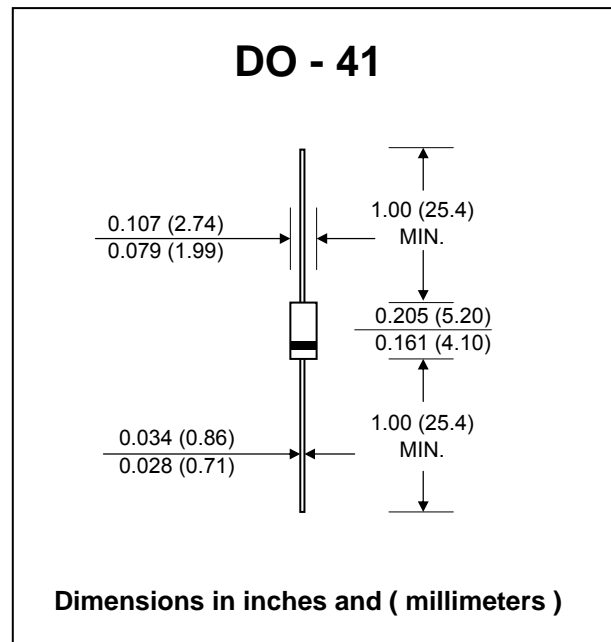
**FEATURES :**

- \* Glass passivated chip junction
- \* High forward surge capability
- \* High efficiency
- \* Low switching losses
- \* Low forward voltage drop
- \* Ultrafast reverse recovery time
- \* **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 : 0.335 gram

## ULTRA FAST RECTIFIERS



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

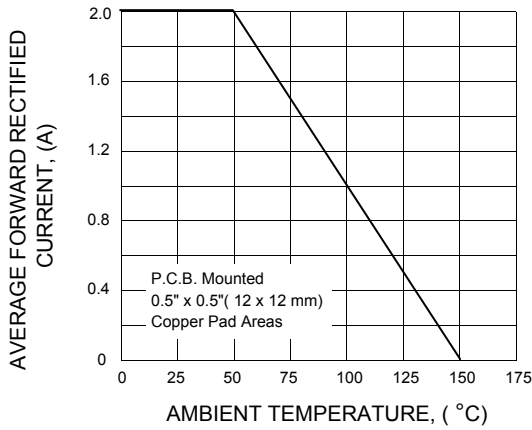
RATING	SYMBOL	UG2A	UG2B	UG2C	UG2D	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	V
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	V
Maximum Average Forward Current $T_a = 50\text{ }^\circ\text{C}$	$I_{F(AV)}$	2.0				A
Maximum non-repetitive peak forward current 8.3ms Single half sine wave superimposed on rated load	$I_{FSM}$	80				A
Maximum Instantaneous Forward Voltage at $I_F = 2.0\text{ A}^{(1)}$	$V_F$	0.95				V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 100\text{ }^\circ\text{C}$	$I_R$	5				$\mu\text{A}$
	$I_{R(H)}$	200				$\mu\text{A}$
Maximum Reverse Recovery Time <sup>(2)</sup>	$T_{rr}$	15				ns
Typical Junction Capacitance( at 4V, 1MHz)	$C_J$	15				pF
Typical Thermal Resistance <sup>(3)</sup>	$R_{\theta JA}$	45				$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	- 55 to + 150				$^\circ\text{C}$

**Notes :**

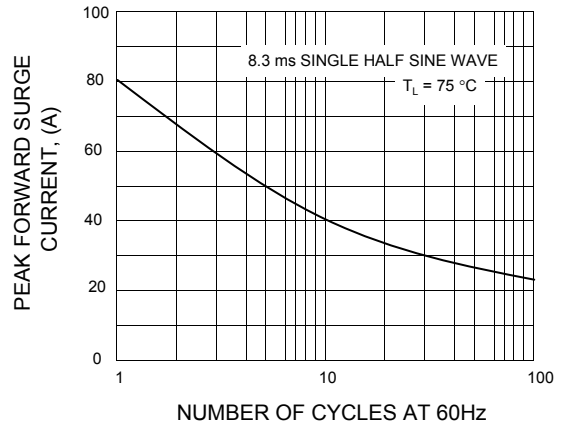
- (1) Pulse test: 300  $\mu\text{s}$  pulse width, 1 % duty cycle.
- (2) Reverse Recovery Test Conditions :  $I_F = 0.5\text{ A}$ ,  $I_R = 1.0\text{ A}$ ,  $I_{rr} = 0.25\text{ A}$ .
- (3) Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length.

**RATING AND CHARACTERISTIC CURVES ( UG2A - UG2D)**

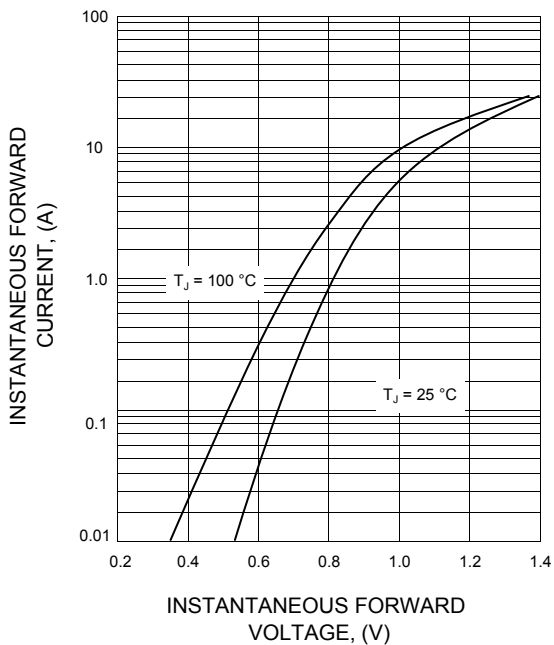
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

