



### **ULTRAFAST PLASTIC RECTIFIER**

Voltage 1000 V Current 3 A

#### **Features**

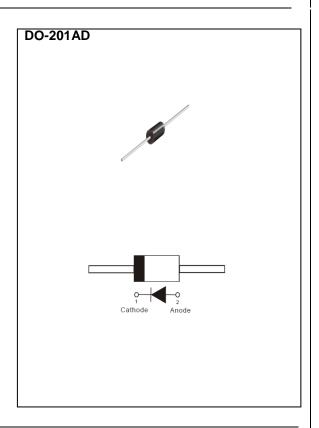
- Glass passivated chip junction
- Ultrafast reverse recovery time
- Low forward voltage drop
- Low switching losses, high efficiency
- High forward surge capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

#### **Mechanical Data**

• Case: DO-201AD Package

• Terminals: Solderable per MIL-STD-750, Method 2026

• Approx. Weight: 0.037 ounces, 1.057 grams



# **Maximum Ratings and Thermal Characteristics** ( $T_A = 25$ $^{\circ}C$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	1000	V
Maximum Rms Voltage	$V_{RMS}$	700	V
Maximum Dc Blocking Voltage	$V_{DC}$	1000	V
Maximum Average Forward Current	I <sub>F(AV)</sub>	3	Α
Peak Forward Surge Current: 8.3 ms Single Half Sine- Wave Superimposed On Rated Load	I <sub>FSM</sub>	150	Α
Typical Junction Capacitance  Measured at 1 MHZ And Applied V <sub>R</sub> = 4 V	CJ	28	pF
Typical Thermal Resistance	$R_{\theta JA}^{(1)}$ $R_{\theta JC}^{(2)}$	38 11	°C/W
Operating Junction Temperature Range	TJ	-55~150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C





# **Electrical Characteristics** ( $T_A = 25$ $^{\circ}$ C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	$V_{F}$	$I_F = 3 \text{ A}, T_J = 25 ^{\circ}\text{C}$	ı	-	1.7	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 1000 V, T <sub>J</sub> = 25 °C	-	-	1	uA
		V <sub>R</sub> = 1000 V,T <sub>J</sub> = 100 °C	-	-	100	
Reverse Recovery Time	T <sub>RR</sub> (3)	I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1 A,	1	-	75	ns
		$I_{RR} = 0.25 \text{ A}, T_{J} = 25 ^{\circ}\text{C}$				

#### NOTES:

- 1. The testing condition of the thermal resistance (junction to ambient) is based on 10mm lead length between mini copper pads
- 2. The testing condition of the thermal resistance (junction to lead) is based on 10mm lead length between two 10cm x 10cm copper pads
- 3. Reverse Recovery Time  $I_F = 0.5$  A,  $I_R = 1$  A,  $I_{RR} = 0.25$  A,  $T_J = 25^{\circ}C$





#### **TYPICAL CHARACTERISTIC CURVES**

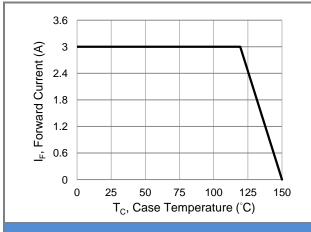
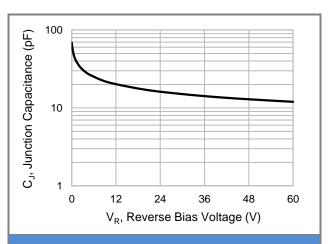


Fig.1 Forward Current Derating Curve



**Fig.2 Typical Junction Capacitance** 

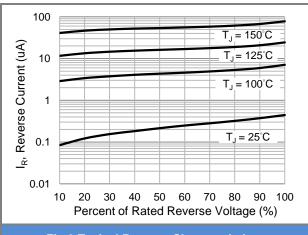


Fig.3 Typical Reverse Characteristics

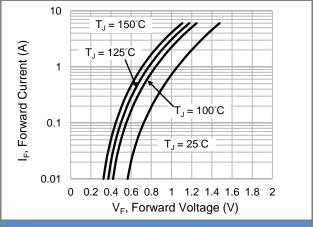


Fig.4 Typical Forward Characteristics

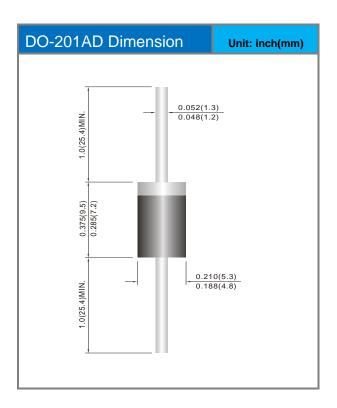




### **Part No Packing Code Version**

Part No Packing Code	Package Type	Packing Type	Marking	Version
UF3010GP_AY_00001	DO-201AD	1250pcs / Ammo	UF3010GP	Halogen free
UF3010GP_B0_00001	DO-201AD	500pcs / Box	UF3010GP	Halogen free
UF3010GP_R2_00001	DO-201AD	1250pcs / 13" reel	UF3010GP	Halogen free

### **Packaging Information & Mounting Pad Layout**







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