



# ER306

## Super Fast Recovery Rectifier

**Voltage** 600 V **Current** 3 A

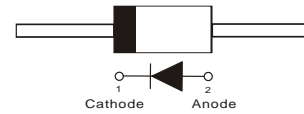
### Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Superfast recovery times
- Low forward voltage, high current capability
- Hermetically sealed
- Low leakage
- High 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: 0.0396 ounces, 1.122 grams

### DO-201AD



### Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	600	V
Maximum Rms Voltage	V <sub>RMS</sub>	420	V
Maximum Dc Blocking Voltage	V <sub>DC</sub>	600	V
Maximum Average Forward Current	I <sub>F(AV)</sub>	3	A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I <sub>FSM</sub>	110	A
Typical Junction Capacitance Measured at 1 MHZ And Applied V <sub>R</sub> = 4 V	C <sub>J</sub>	21	pF
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub>	31	°C/W
(Note 2)	R <sub>θJC</sub>	9	
Operating Junction Temperature Range	T <sub>J</sub>	-55~150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C



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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	$V_F$	$I_F = 3\text{ A}, T_J = 25\text{ }^\circ\text{C}$	-	1.5	1.7	V
Reverse Current	$I_R$	$V_R = 600\text{ V}, T_J = 25\text{ }^\circ\text{C}$	-	-	1	uA
		$V_R = 600\text{ V}, T_J = 125\text{ }^\circ\text{C}$	-	-	300	
Reverse Recovery Time	$T_{RR}$	$I_F = 0.5\text{ A}, I_R = 1\text{ A},$ $I_{RR} = 0.25\text{ A}, T_J = 25\text{ }^\circ\text{C}$	-	-	35	ns

**NOTES:**

1. Thermal resistance from junction to ambient length 0.375" (9.5mm)P.C.B.mounted
2. Mounted on a FR-4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area



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## TYPICAL CHARACTERISTIC CURVES

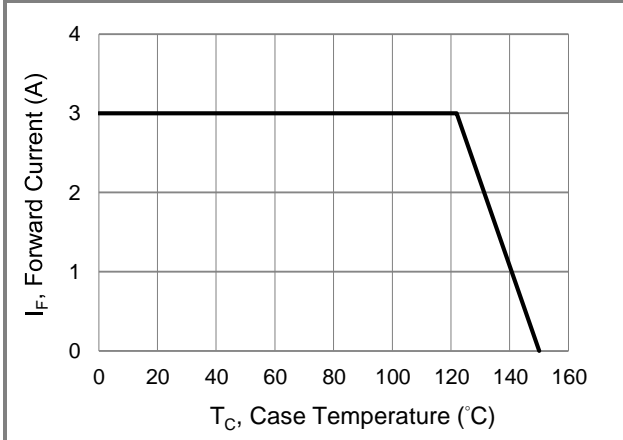


Fig.1 Forward Current Derating Curve

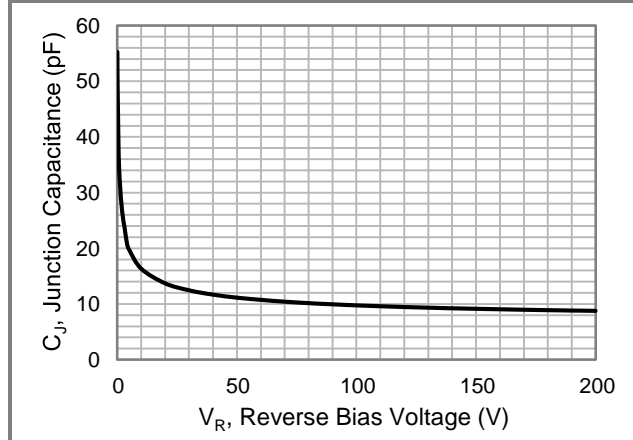


Fig.2 Typical Junction Capacitance

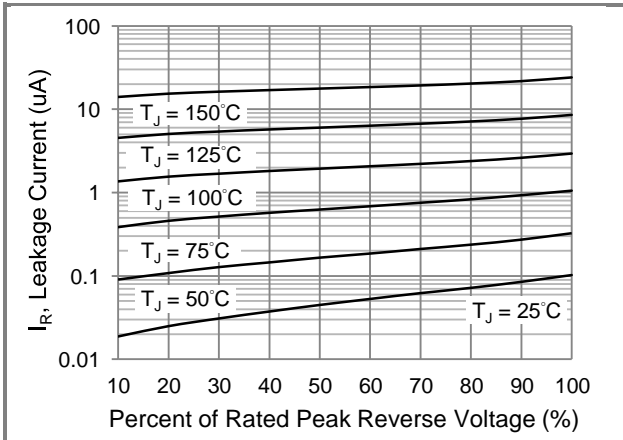


Fig.3 Typical Reverse Characteristics

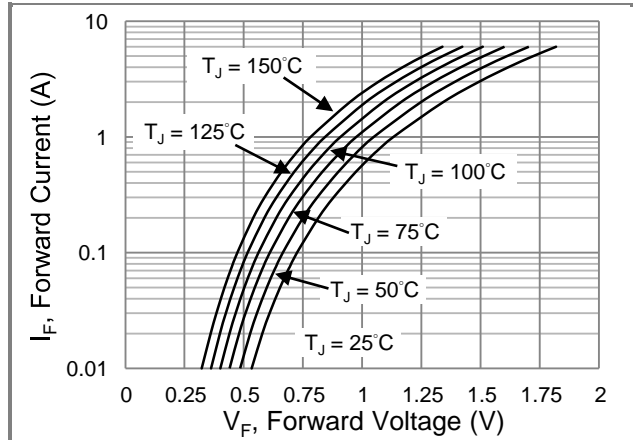


Fig.4 Typical Forward Characteristics

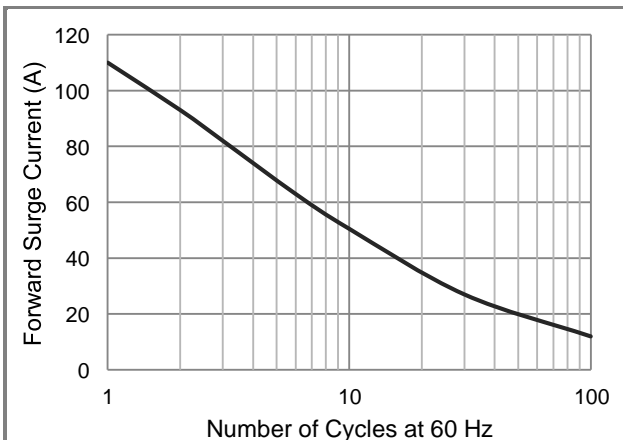


Fig.5 Maximum Non-Repetitive Surge Current

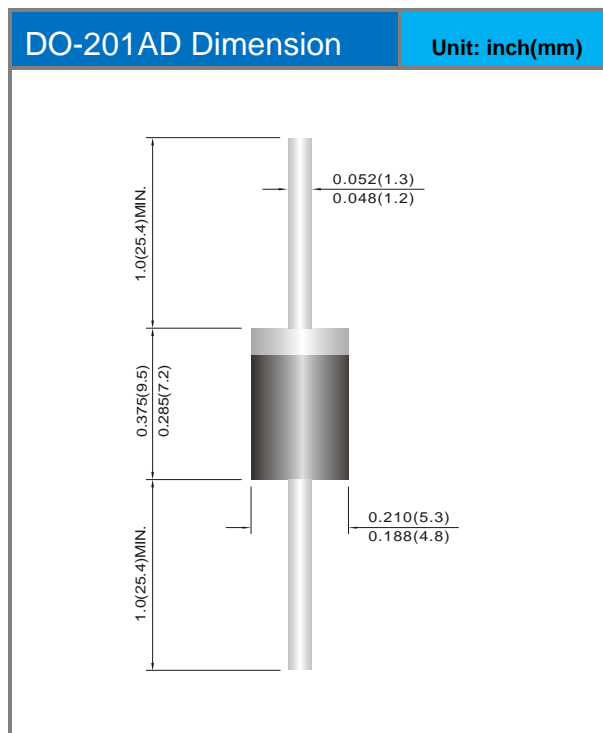


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## Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
ER306_AY_00101	DO-201AD	1250pcs / Ammo	ER306	Halogen free
ER306_B0_00101	DO-201AD	500pcs / Box	ER306	Halogen free
ER306_R2_00101	DO-201AD	1250pcs / 13" reel	ER306	Halogen free

## Packaging Information





## ER306

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