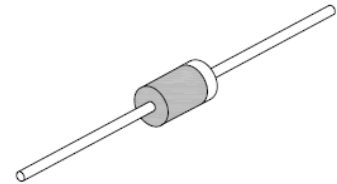


### 3.0A Ultra Fast Recovery Rectifier

#### Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds  
/.375" (9.5mm) lead length at 5lbs (2.3kg) tension
- RoHS Compliance



DO-201AD



#### Mechanical Data

<b>Case:</b>	DO-201AD, molded plastic
<b>Epoxy:</b>	UL 94V-0 rate flame retardant
<b>Terminals:</b>	Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
<b>Polarity:</b>	Color band denotes cathode end
<b>Weight:</b>	1.2 grams

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

Symbol	Description	TUF 301	TUF 302	TUF 303	TUF 304	TUF 305	TUF 306	TUF 307	TUF 308	Unit	Conditions
<b>V<sub>RRM</sub></b>	Maximum Repetitive Peak Reverse Voltage	50	100	200	300	400	600	800	1000	V	
<b>V<sub>RMS</sub></b>	Maximum RMS Voltage	35	70	140	210	280	420	560	700	V	
<b>V<sub>DC</sub></b>	Maximum DC Blocking Voltage	50	100	200	300	400	600	800	1000	V	
<b>I<sub>O(AV)</sub></b>	Maximum Average Forward Rectified Current	3.0								A	$T_A=55^\circ\text{C}$
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current	150								A	8.3ms single half sine-wave superimposed on rated load (JEDEC method)

# 3.0A Ultra Fast Recovery Rectifier

## TUF301 - TUF308

Symbol	Description	TUF 301	TUF 302	TUF 303	TUF 304	TUF 305	TUF 306	TUF 307	TUF 308	Unit	Conditions	
<b>V<sub>F</sub></b>	Maximum Instantaneous Forward Voltage	1.0			1.3		1.7			V	I <sub>F</sub> =3.0 A	
<b>I<sub>R</sub></b>	Maximum DC Reverse Current at Rated DC Blocking Voltage	10.0									μA	TA=25° C
		100										TA=100° C
<b>T<sub>rr</sub></b>	Typical Reverse Recovery Time	50					75				nS	I <sub>F</sub> =0.5A, I <sub>R</sub> =1A, I <sub>rr</sub> =0.25A
<b>C<sub>J</sub></b>	Typical Junction Capacitance	80					50				pf	VR=4V, f=1MHz
<b>T<sub>J</sub></b>	Operating Temperature range	-55 to +125									° C	
<b>T<sub>STG</sub></b>	Storage Temperature Range	-55 to +150										

### Typical Characteristics Curves

Fig.1-Max. Forward Current Derating Curve

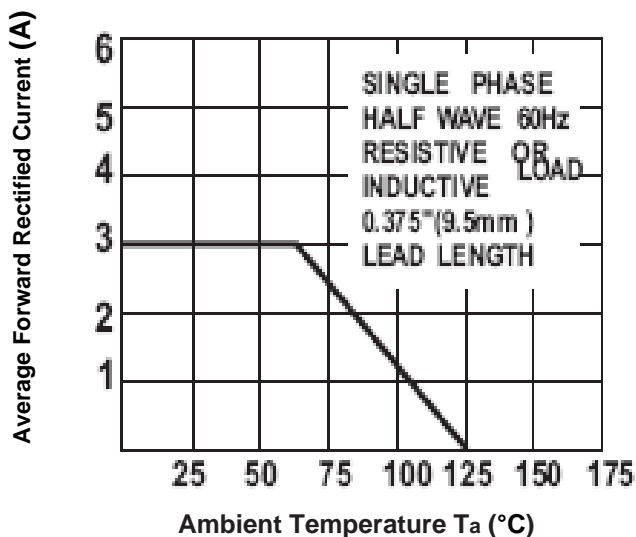
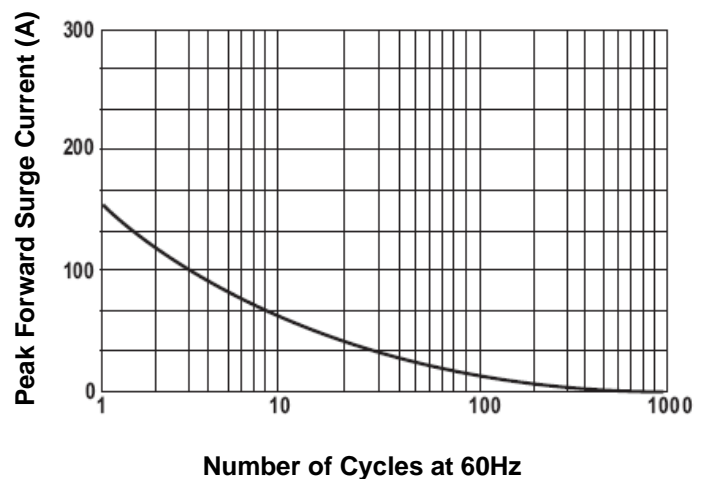


Fig.2-Max. Non-Repetitive Forward Surge Current



# 3.0A Ultra Fast Recovery Rectifier

## TUF301 - TUF308

Fig.3- Typical Forward Characteristics

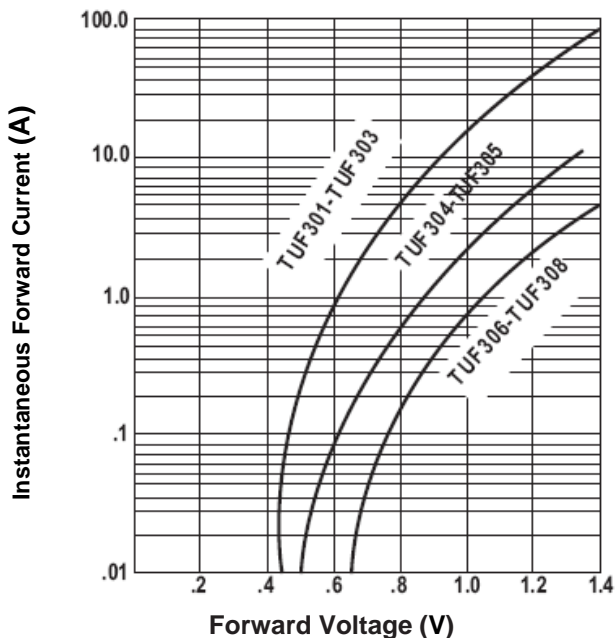


Fig.4-Typical Reverse Characteristics

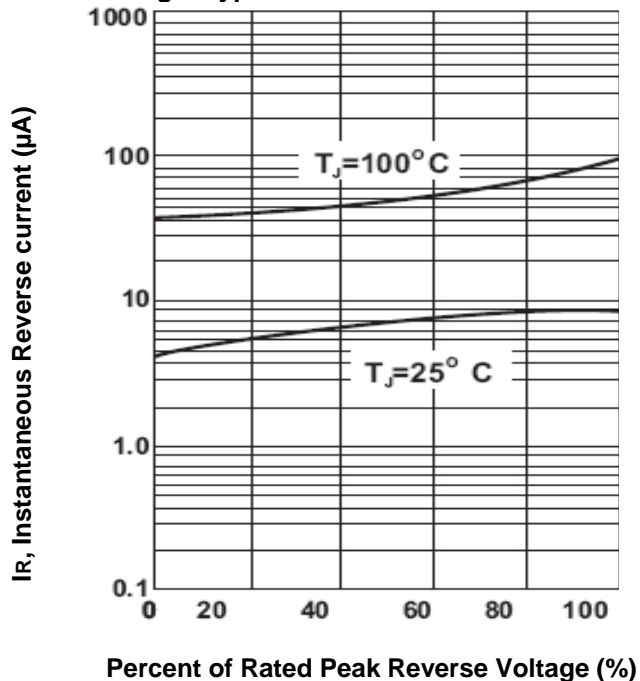
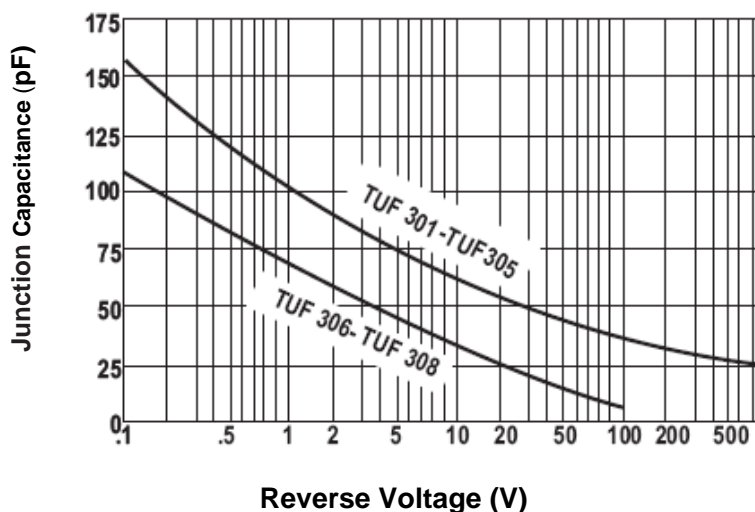


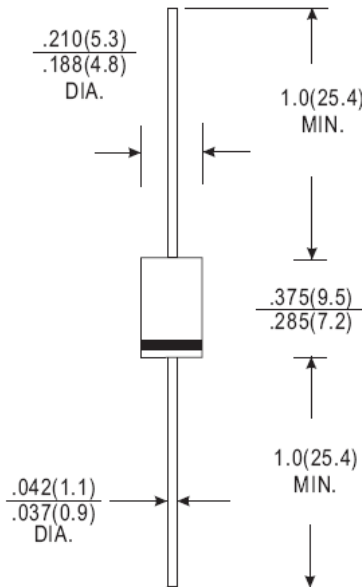
Fig.5- Typical Junction Capacitance



## 3.0A Ultra Fast Recovery Rectifier

TUF301 - TUF308

### Dimensions in inches (mm)



D0-201AD

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