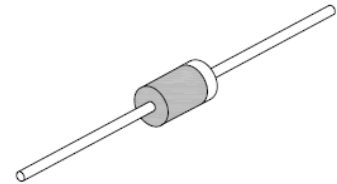


## 5.0A Ultra Fast Recovery Rectifier

### Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- High speed switching
- 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 501	TUF 502	TUF 503	TUF 504	TUF 505	TUF 506	TUF 507	TUF 508	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	5.0								A	T <sub>A</sub> =50 °C
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current	200								A	8.3ms single half sine-wave superimposed on rated load (JEDEC method)

# 5.0A Ultra Fast Recovery Rectifier

## TUF501 - TUF508

Symbol	Description	TUF 501	TUF 502	TUF 503	TUF 504	TUF 505	TUF 506	TUF 507	TUF 508	Unit	Conditions	
<b>V<sub>F</sub></b>	Maximum Instantaneous Forward Voltage	1.0			1.3		1.85			V	I <sub>F</sub> =5.0 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	75									pf	VR=4V, f=1MHz
<b>T<sub>J</sub></b>	Operating Temperature range	-55 to +150									° C	
<b>T<sub>STG</sub></b>	Storage Temperature Range	-55 to +150										

### Typical Characteristics Curves

Fig.1-Max. Forward Current Derating Curve

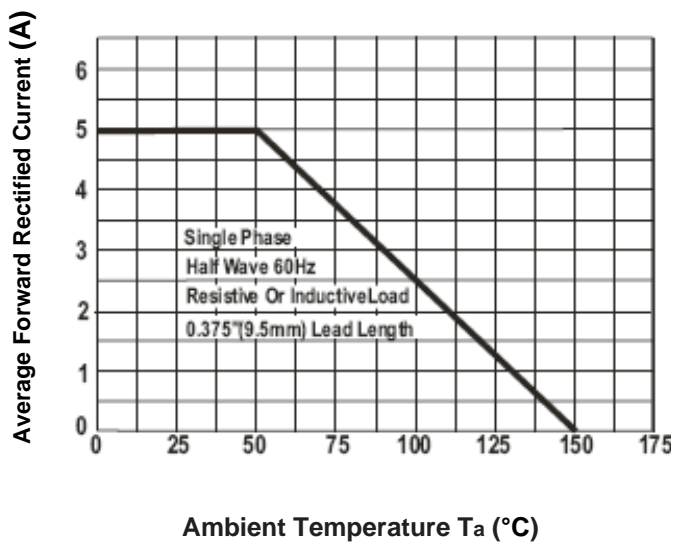
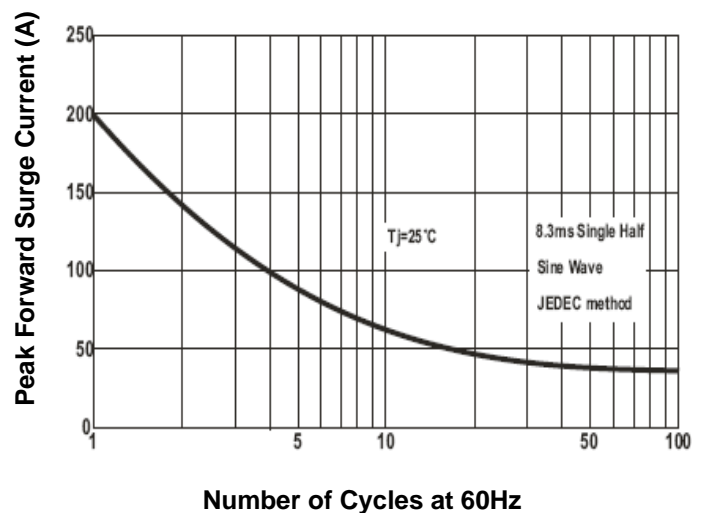


Fig.2-Max. Non-Repetitive Forward Surge Current



# 5.0A Ultra Fast Recovery Rectifier

## TUF501 - TUF508

Fig.3- Typical Forward Characteristics

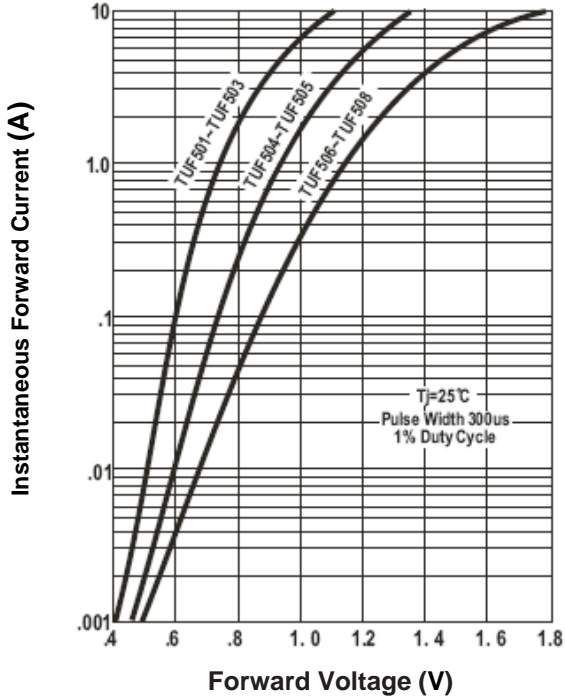


Fig.4-Typical Reverse Characteristics

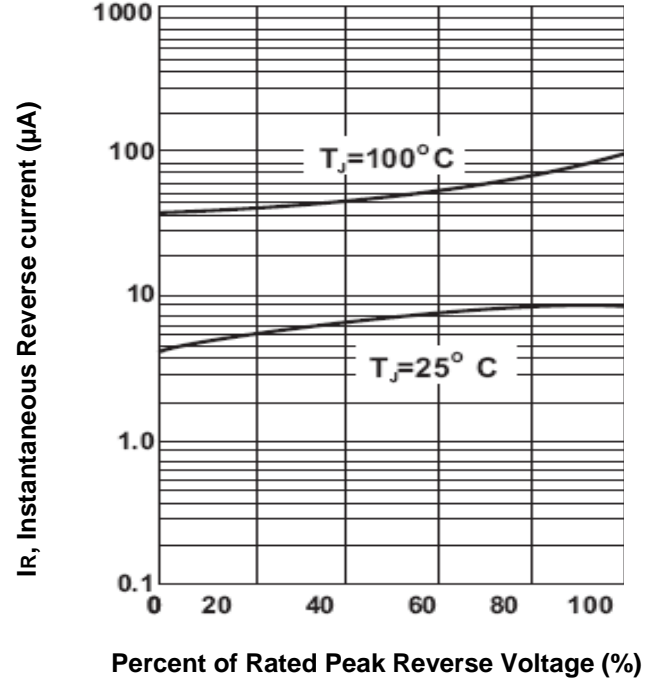
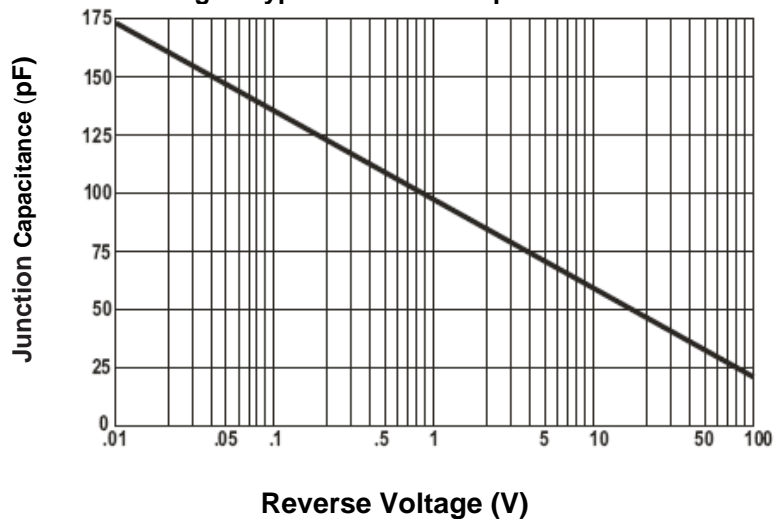


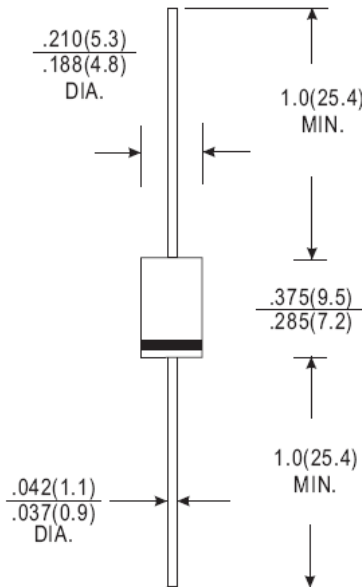
Fig.5- Typical Junction Capacitance



## 5.0A Ultra Fast Recovery Rectifier

TUF501 - TUF508

### Dimensions in inches (mm)



D0-201AD

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