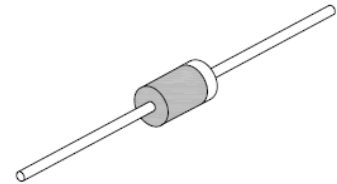


3.0A Ultra Fast Recovery Rectifier

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

Case:	DO-201AD, molded plastic
Epoxy:	UL 94V-0 rate flame retardant
Terminals:	Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
Polarity:	Color band denotes cathode end
Weight:	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
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	50	100	200	300	400	600	800	1000	V	
V_{RMS}	Maximum RMS Voltage	35	70	140	210	280	420	560	700	V	
V_{DC}	Maximum DC Blocking Voltage	50	100	200	300	400	600	800	1000	V	
I_{O(AV)}	Maximum Average Forward Rectified Current	3.0								A	$T_A=55^\circ\text{C}$
I_{FSM}	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	
V_F	Maximum Instantaneous Forward Voltage	1.0			1.3		1.7			V	I _F =3.0 A	
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	10.0									μA	TA=25° C
		100										TA=100° C
T_{rr}	Typical Reverse Recovery Time	50					75				nS	I _F =0.5A, I _R =1A, I _{rr} =0.25A
C_J	Typical Junction Capacitance	80					50				pf	VR=4V, f=1MHz
T_J	Operating Temperature range	-55 to +125									° C	
T_{STG}	Storage Temperature Range	-55 to +150										

Typical Characteristics Curves

Fig.1-Max. Forward Current Derating Curve

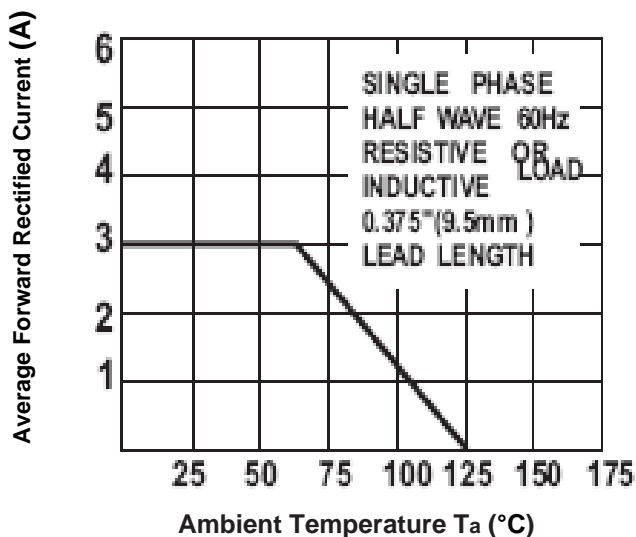
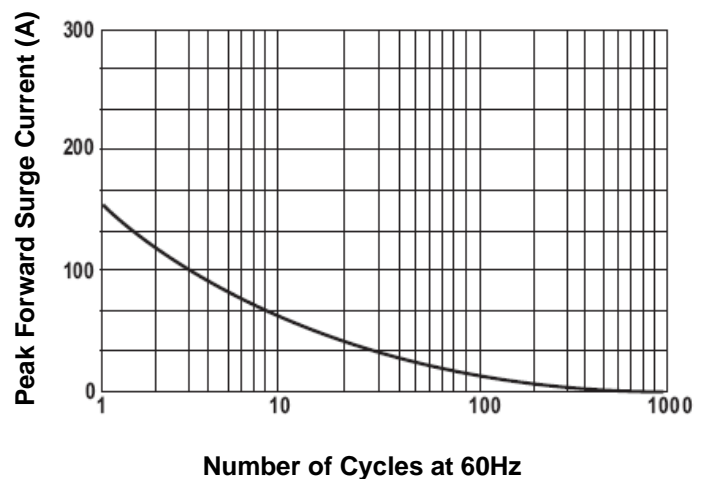


Fig.2-Max. Non-Repetitive Forward Surge Current



3.0A Ultra Fast Recovery Rectifier

TUF301 - TUF308

Fig.3- Typical Forward Characteristics

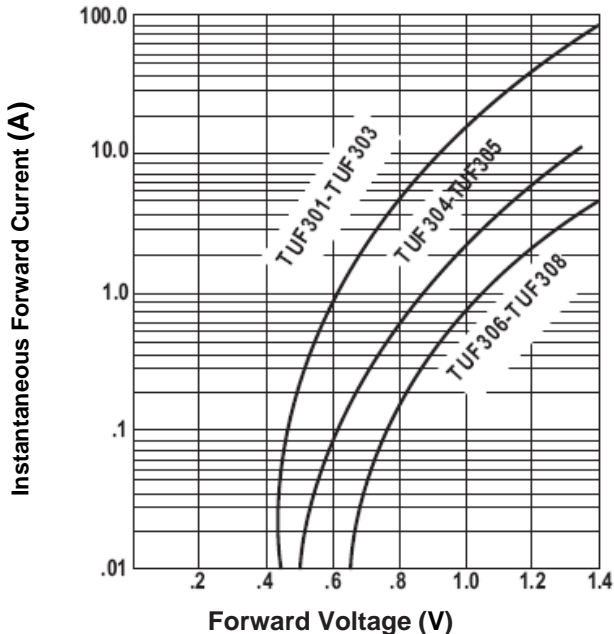


Fig.4-Typical Reverse Characteristics

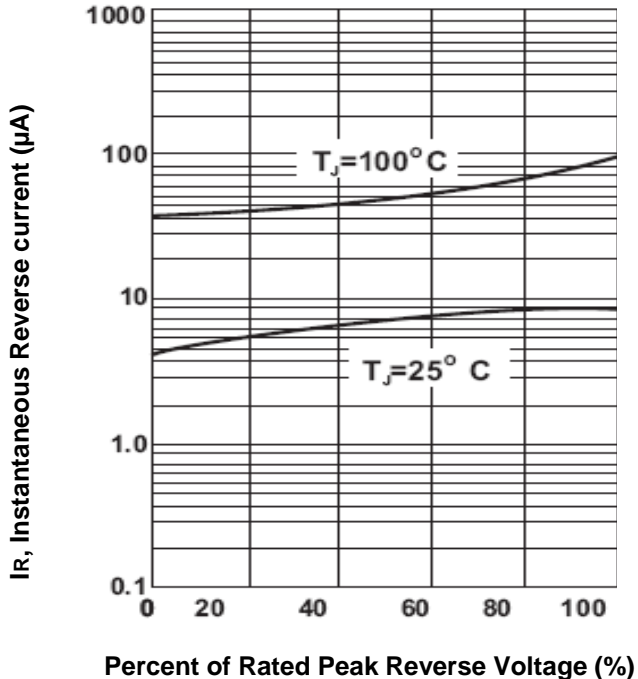
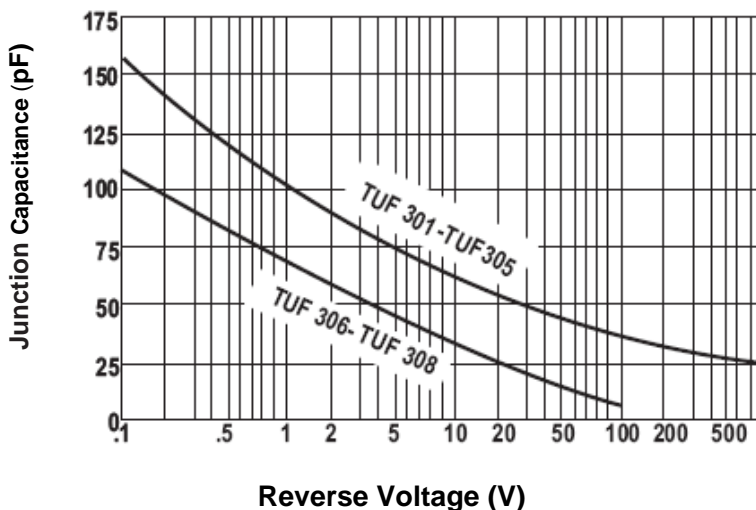


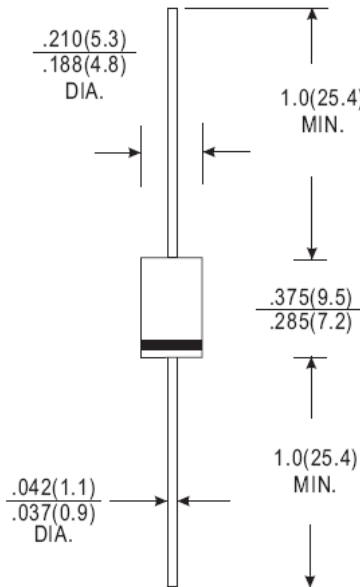
Fig.5- Typical Junction Capacitance



3.0A Ultra Fast Recovery Rectifier

TUF301 - TUF308

Dimensions in inches (mm)



D0-201AD

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