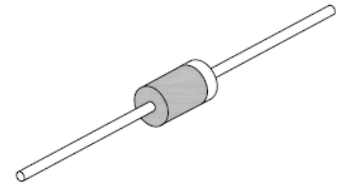


5.0A Ultra Fast Recovery Rectifier

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

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 501	TUF 502	TUF 503	TUF 504	TUF 505	TUF 506	TUF 507	TUF 508	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	5.0								A	T _A =50 °C
I_{FSM}	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
V_F	Maximum Instantaneous Forward Voltage	1.0			1.3		1.85			V	I _F =5.0 A
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	10.0								μA	T _A =25° C
		100									T _A =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	75								pf	V _R =4V, f=1MHz
T_J	Operating Temperature range	-55 to +150								° C	
T_{STG}	Storage Temperature Range	-55 to +150									

Typical Characteristics Curves

Fig.1-Max. Forward Current Derating Curve

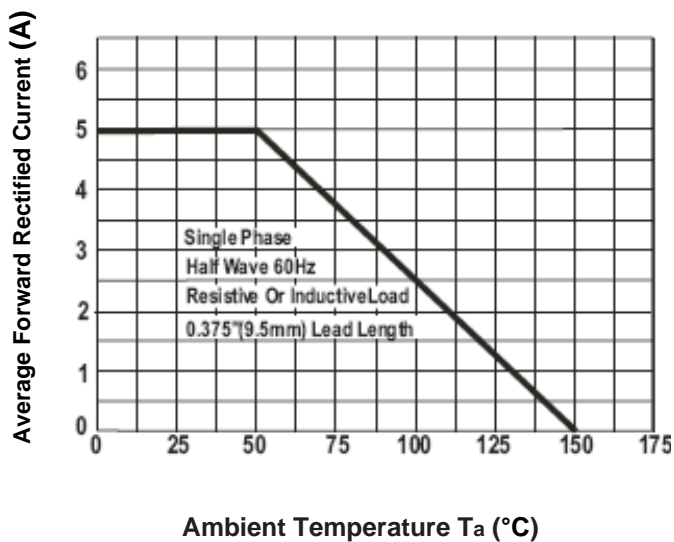
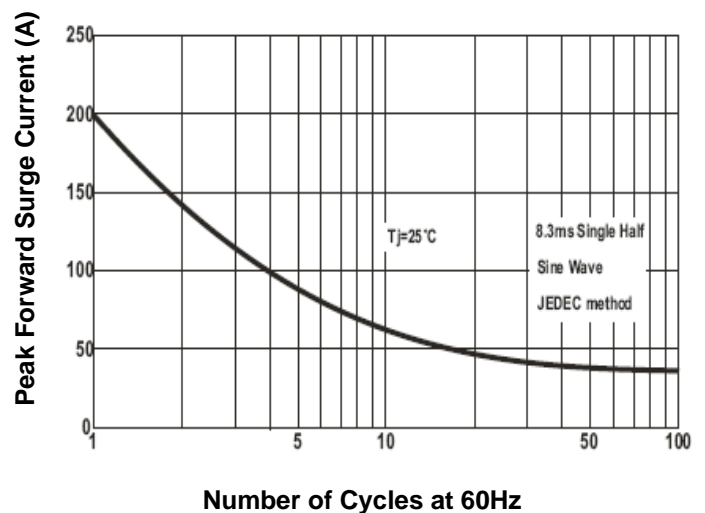


Fig.2-Max. Non-Repetitive Forward Surge Current



5.0A Ultra Fast Recovery Rectifier

TUF501 - TUF508

Fig.3- Typical Forward Characteristics

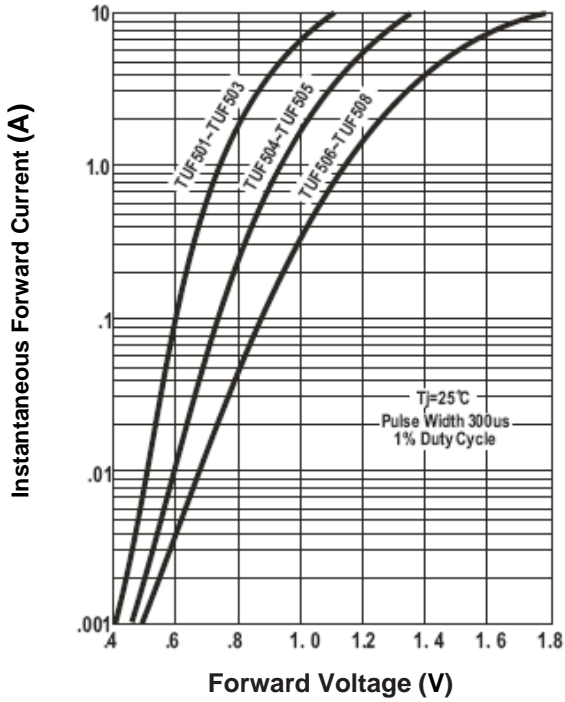


Fig.4-Typical Reverse Characteristics

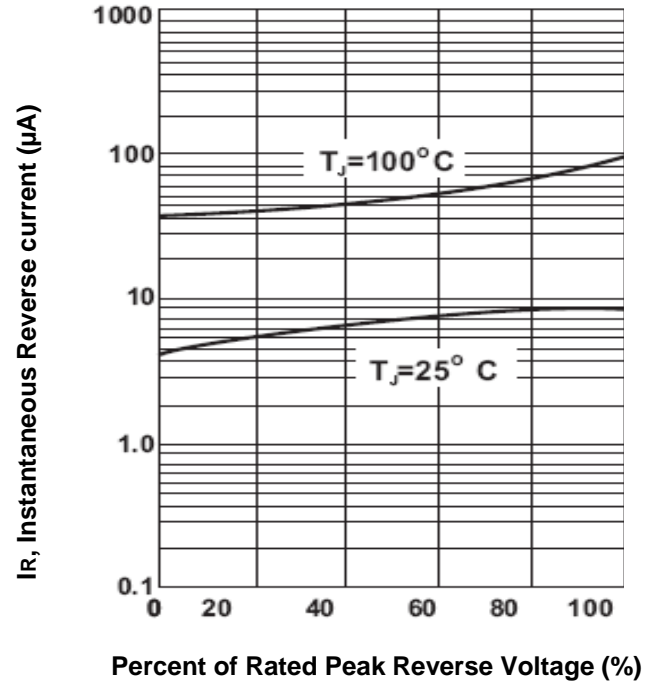
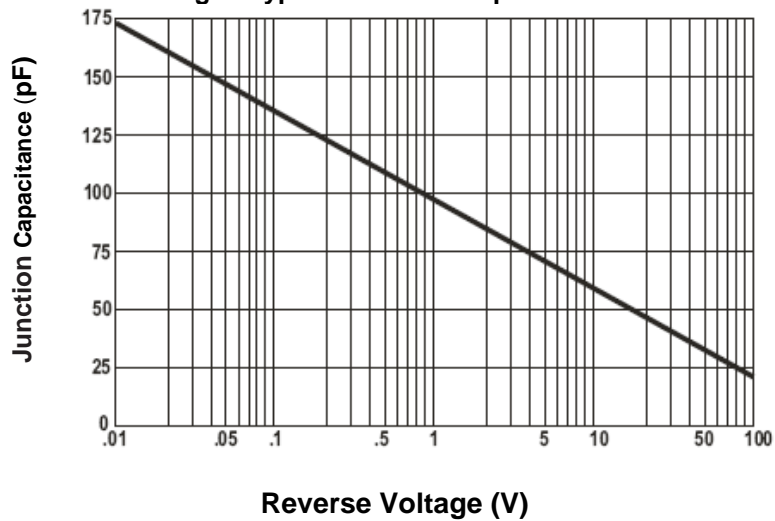


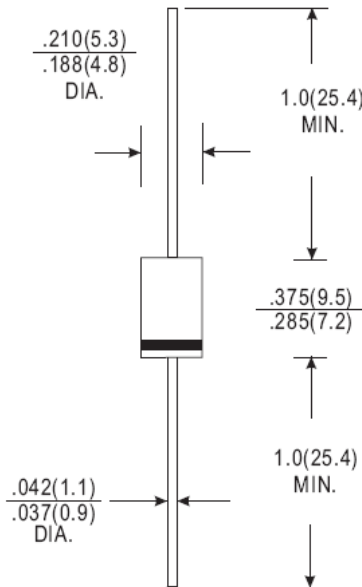
Fig.5- Typical Junction Capacitance



5.0A Ultra Fast Recovery Rectifier

TUF501 - TUF508

Dimensions in inches (mm)



D0-201AD

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