



Super Fast Rectifiers
Reverse Voltage 50 to 600 Volts Forward Current 3.0 Amperes

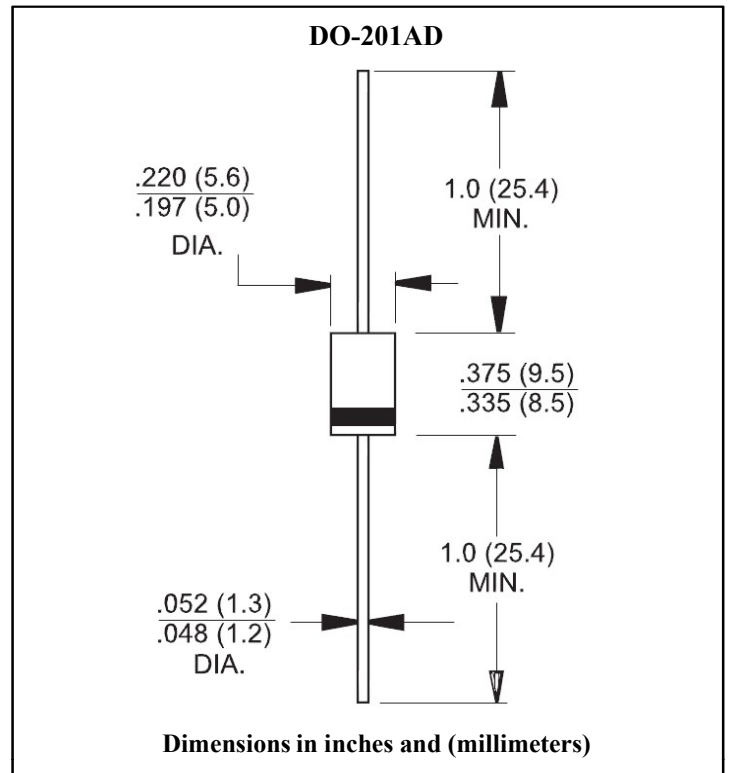
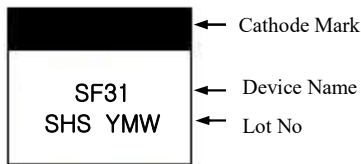
Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

Mechanical Data

- Case : Molded plastic
- Epoxy : UL 94V-O rate flame retardant
- Lead : Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity : Color band denotes cathode end
- High temperature soldering guaranteed : 260°C/10 seconds /0.375", (9.5mm) lead lengths at 5lbs., (2.3kg) tension
- Weight : 1.1grams

Marking



Maximum Ratings & Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified
Single phase half wave 60 HZ, resistive or inductive load. For capacitive load, derate current by 20%

Parameter	Symbol	SF31	SF32	SF33	SF34	SF35	SF36	SF37	SF38	Unit	Remark
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	500	600	V	
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	350	420	V	
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	500	600	V	
Maximum Average Forward Rectified Current 0.375" (9.5mm)Lead Length	$I_F(AV)$	3.0								A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	125								A	
Maximum Instantaneous Forward Voltage @ 3.0A	V_F	0.95			1.3		2.0			V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5.0								uA	Ta=25°C
		100								uA	Ta=125°C
Maximum Reverse Recovery Time	trr	35								ns	Note 1
Typical Junction Capacitance	C_J	80				60				pF	Note 2
Typical Thermal Resistance	Rth(j-a)	35								°C /W	Note 3
	Rth(j-l)	10								°C /W	
Operation Junction Temperature Range	T_J	-55 to +150								°C	
Storage Temperature Range	T_{STG}	-55 to +150								°C	

Note 1. Reverse Recovery Test Conditions : $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

Note 2. Measured at 1MHz and Applied Reverse Voltage of 4.0Volts D.C.

Note 3. Mount on Cu-Pad Size 16mm×16mm on P.C.B.

Ratings and Characteristics Curves (Ta=25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

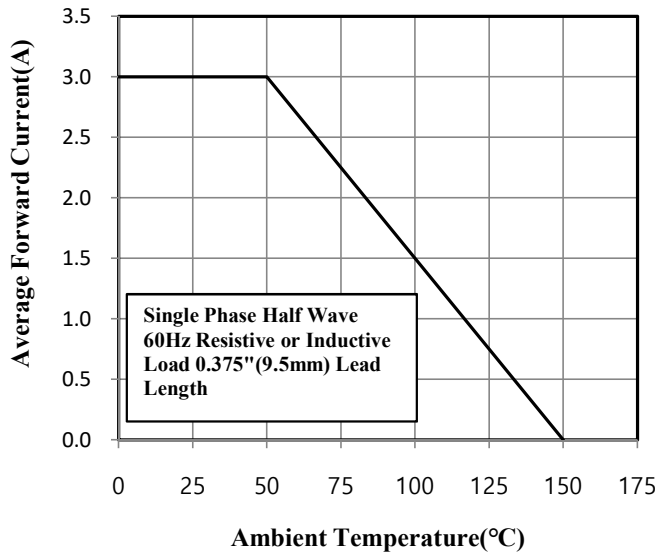


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

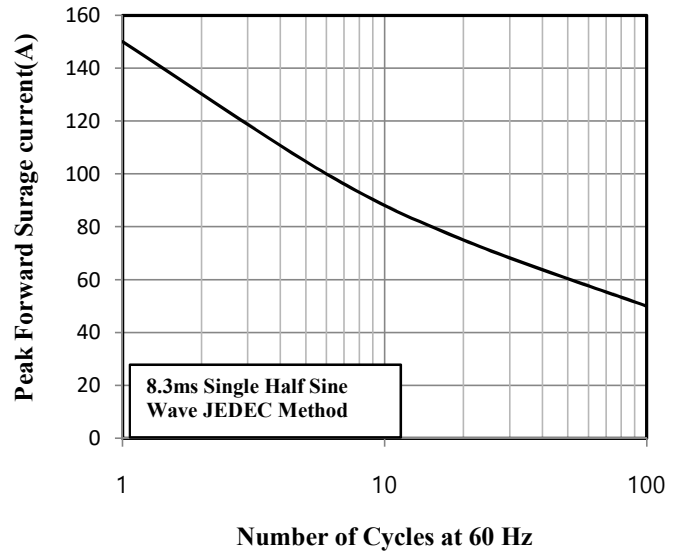


Fig.3 Typical Instantaneous Forward Characteristics

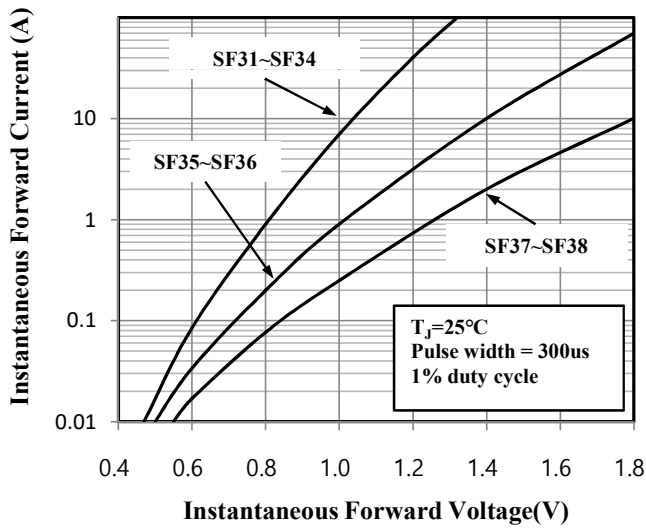


Fig.4 Typical Junction Capacitance

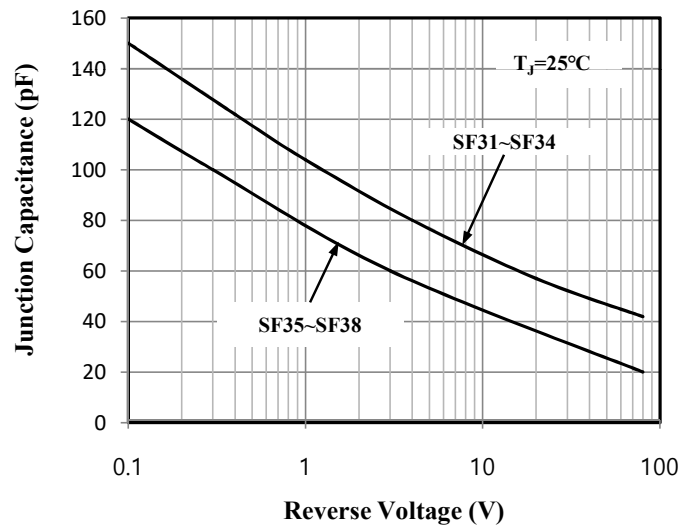


Fig.5 Typical Reverse Characteristics

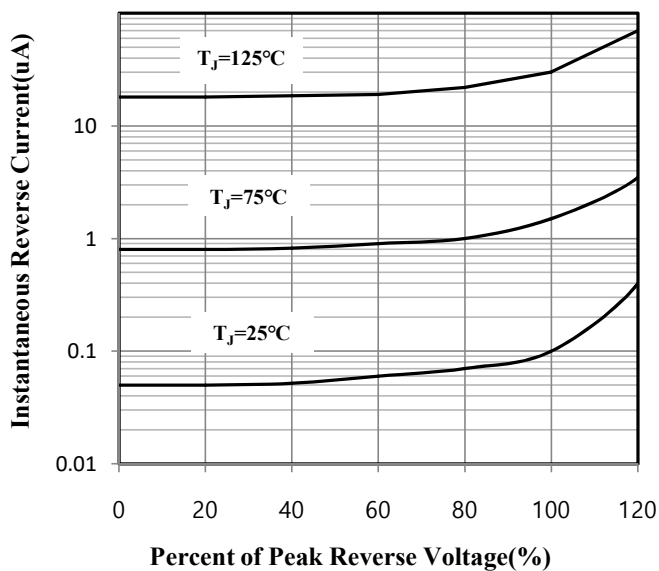


Fig. 6 Reverse Recovery Time Characteristic and Test Circuit Diagram

