



Super Fast Rectifier Diodes

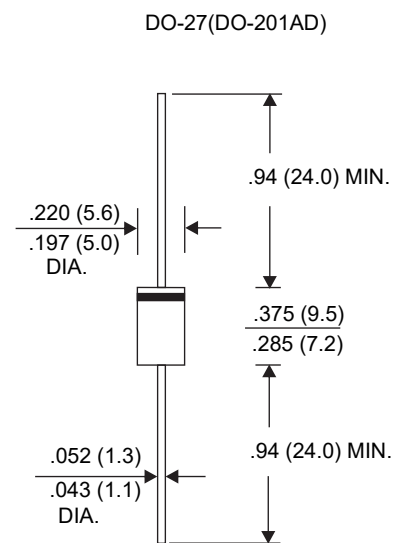
SF54 THRU SF59 200 TO 800V 5.0A

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Fast Recovery times for high efficiency
- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-O
- High temperature soldering : 260°C /10 seconds at terminals

MECHANICAL DATA

- Case: Molded plastic, DO-27 or DO-201AD
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

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

Type Number or marks	Symbols	SF54	SF56	SF58	SF59	Units
Maximum Recurrent Peak Reverse Voltage	VRRM	200	400	600	800	Volts
Maximum RMS Voltage	VRMS	140	280	420	560	Volts
Maximum DC Blocking Voltage	VDC	200	400	600	800	Volts
Maximum Average Forward Rectified Current. Lead Length @Ta(Fig 1)	I(AV)	5.0				Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	IFSM	150				Amp
Maximum Forward Voltage @I(AV)	VF	1.0	1.3	1.7	1.85	Volts
Maximum DC reverse current at Tj=25°C rated DC blocking voltage per Tj=100°C	IR	10.0 500				uAmp
Typical Thermal Resistance Tj=25°C	Rθ JC	2.0				°C/W
Maximum Reverse Recovery Time (Note 1)	TRR	35			75	nS
Typical Junction Capacitance (Note 2)	CJ	150				pF
Operating Temperature Range Tj	Tj	-55 to +150				°C
Storage Temperature Range TSTG	TSTG	-55 to +150				°C

Note:

1. Measured with $I_F = 0.5A$, $I_R = 1A$, $IRR = 0.25A$.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.

*This product The above data sheet typical data meet the Mentioned standards,designers for reference only

Ordering Information (Example)

Prefered P/N	Package code	Unit weight(g)	Minimum Package(pcs)	Inner box Quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
DO-27	T1	about 1.05	1250	1250	12500	Tape
DO-201AD	B1	about 1.05	250	250	12500	Bulk
DO-201AE	B2	about 1.05	250	250	10000	Bulk



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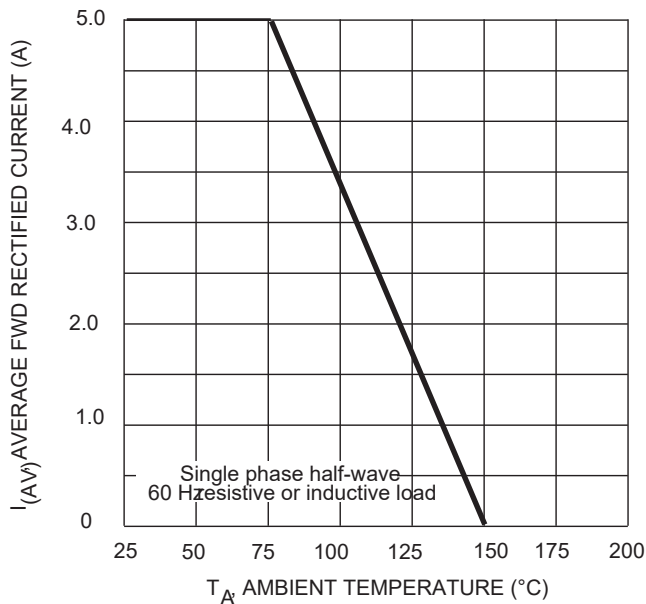


Fig. 1 Forward Derating Curve

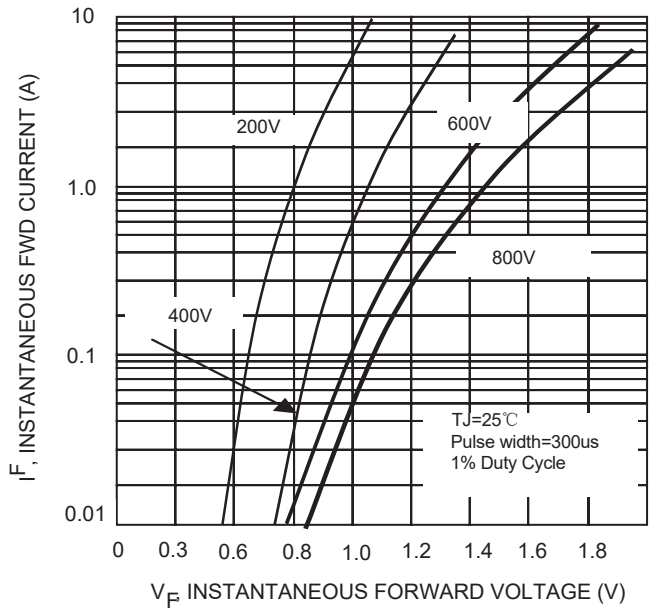


Fig. 2 Typical Forward Characteristics

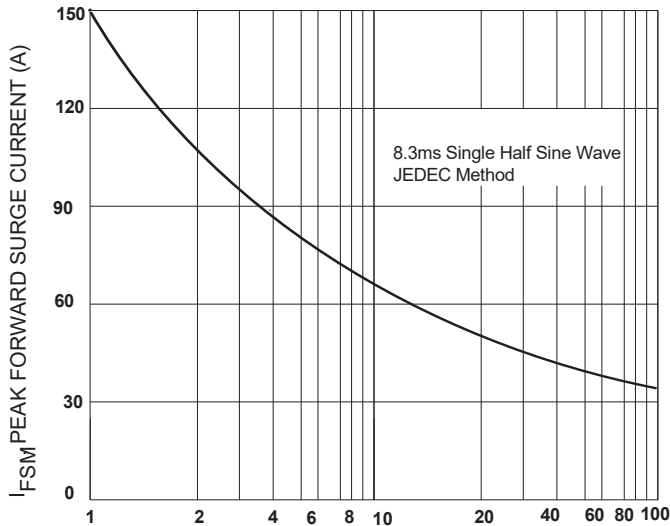


Fig. 3 Peak Forward Surge Current

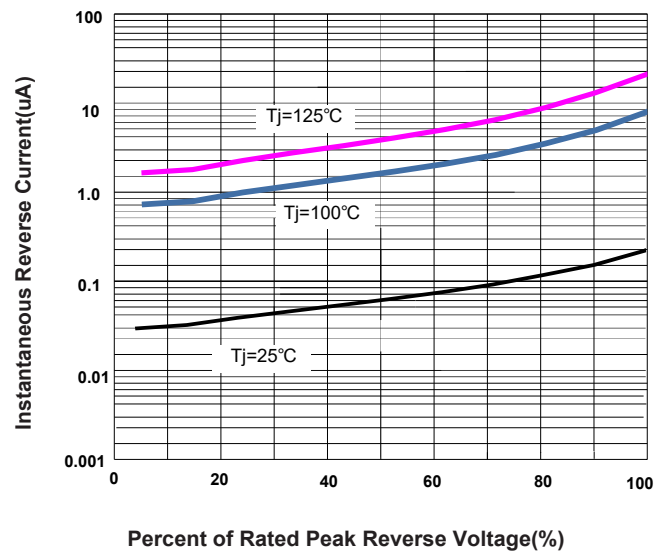
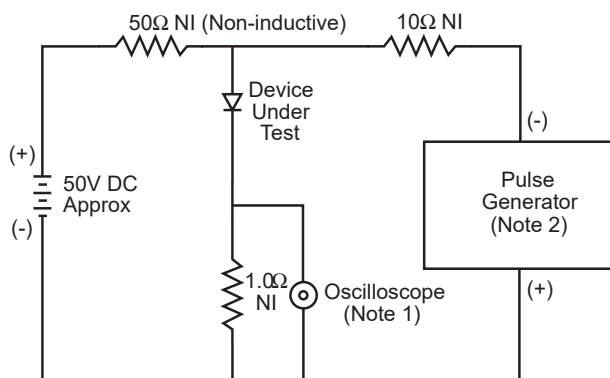


FIG4: Typical Reverse Characteristics



- Notes:
1. Rise Time=7ns max .Input Impedance=1MΩ 22pf
 2. Rise Time=10ns max.Source Impedance=50Ω

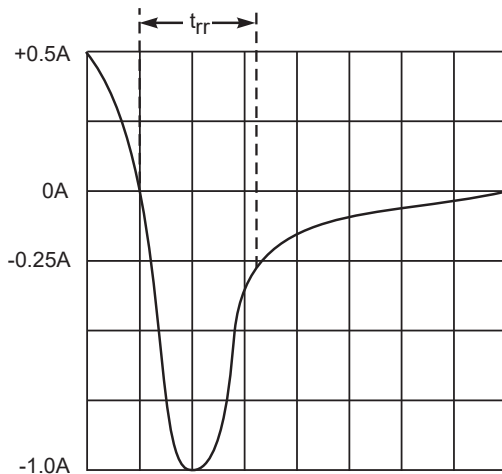


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit