



SEMICONDUCTOR

SF51G THRU SF58G

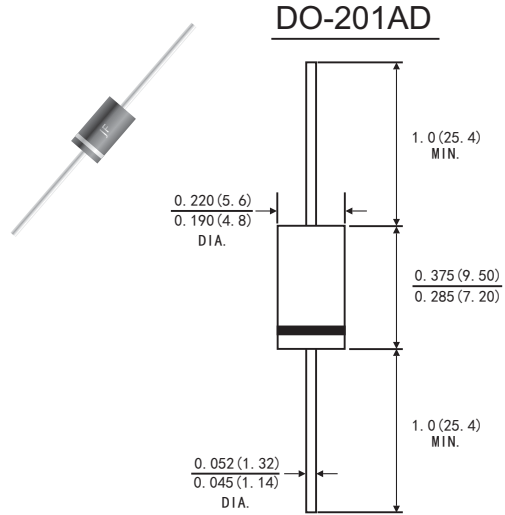
SUPER FAST RECTIFIER
 Reverse Voltage: 50 to 600 Volts
 Forward Current: 5.0 Amperes

FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Good for switching mode application
- Lead (Pb)-free component
- Component in accordance to RoHS 2011/65/EU
- High temperature soldering guaranteed: 260°C/10 seconds at terminals

MECHANICAL DATA

- Case: JEDEC DO-201AD molded plastic body
- TerMInals: Plated axial leads, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.041 ounce, 1.15 grams



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	Symbols	SF 51G	SF 52G	SF 53G	SF 54G	SF 55G	SF 56G	SF 58G	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	Volts
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length	I_{AV}	5.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							Amps
Maximum Instantaneous Forward Voltage at 5.0 A	V_F	0.95			1.3		1.7		Volts
Maximum DC Reverse Current At Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	5.0							μA
	$T_A=100^\circ\text{C}$	50							
Maximum Reverse Recovery Time(Note1)	T_{rr}	35							ns
Typical Junction Capacitance(Note2)	C_j	50							pF
Typical Thermal Resistance(Note3)	$R_{\theta JA}$	20							$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

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

2. Measured at 1MHz and applied reverse voltage of 4.0 Volts.

RATINGS AND CHARACTERISTIC CURVES SF51G THRU SF58G

FIG.1-MAXIMUM AVERAGE FORWARD CURRENT DERATING

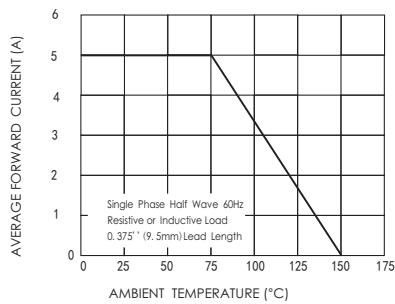


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

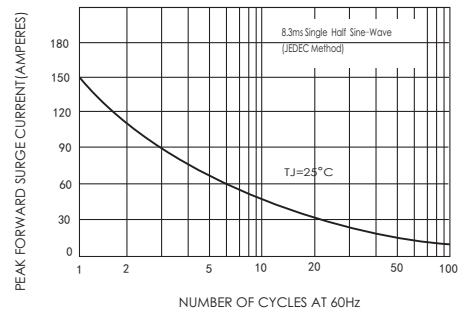


FIG.3-TYPICAL FORWARD CHARACTERISTICS

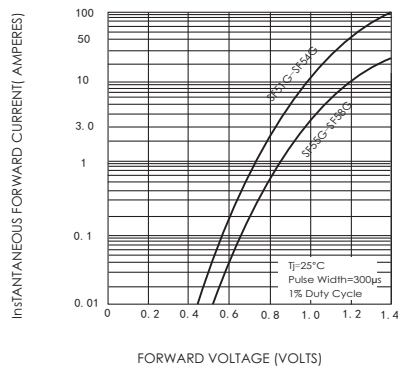


FIG.4-TYPICAL REVERSE CHARACTERISTICS

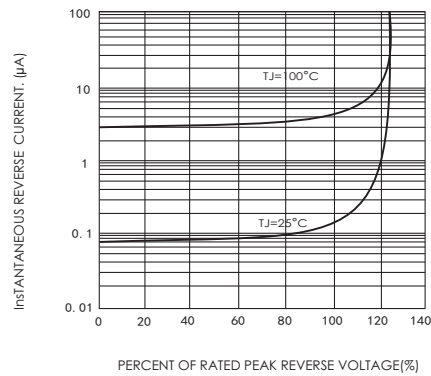
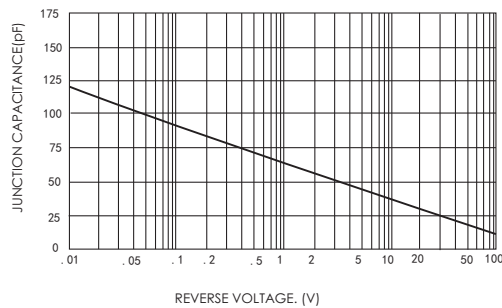


FIG.5-TYPICAL JUNCTION CAPACITANCE



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Rectifiers](#) category:

Click to view products by [Jing Heng](#) manufacturer:

Other Similar products are found below :

[D91A](#) [DA24F4100L](#) [DD89N1600K-A](#) [DD89N16K-K](#) [RL252-TP](#) [DLA11C-TR-E](#) [DSA17G](#) [1N4005-TR](#) [BAV199-TP](#) [UFS120Je3/TR13](#)
[JANS1N6640US](#) [VS-80-1293](#) [DD89N16K](#) [DD89N16K-A](#) [481235F](#) [DSP10G-TR-E](#) [067907F](#) [MS306](#) [ND104N08K](#) [SPA2003-B-D-A01](#) [VS-](#)
[80-6193](#) [VS-66-9903](#) [VGF0136AB](#) [US2JFL-TP](#) [UFS105Je3/TR13](#) [A1N5404G-G](#) [ACGRA4007-HF](#) [ACGRB207-HF](#) [RF301B2STL](#)
[RF501B2STL](#) [UES1306](#) [UES1302](#) [BAV199E6433HTMA1](#) [ACGRC307-HF](#) [ACEFC304-HF](#) [JANTXV1N5660A](#) [UES1106](#) [GS2K-LTP](#)
[D126A45C](#) [D251N08B](#) [SCHJ22.5K](#) [SM100](#) [SCPA2](#) [SCH10000](#) [SDHD5K](#) [STTH20P035FP](#) [VS-8EWS12S-M3](#) [VS-12FL100S10](#)
[ACGRA4001-HF](#) [MUR420GP-TP](#)