LITE-ON SEMICONDUCTOR

SF31DG thru SF31JG

SUPER FAST
GLASS PASSIVATED RECTIFIERS

REVERSE VOLTAGE **- 200** to **600** Volts
FORWARD CURRENT **- 3.0** Amperes

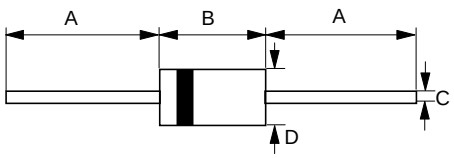
FEATURES

- Glass passivated chip
- Super fast switching time for high efficiency
- Low forward voltage drop and high current capability
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

MECHANICAL DATA

- Case : JEDEC DO-201AD molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.04 ounces, 1.1 grams
- Mounting position : Any

DO-201AD



	DO-201AD	
Dim.	Min.	Max.
A	25.4	-
B	7.30	9.50
C	1.20	1.30
D	4.80	5.30
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

CHARACTERISTICS	SYMBOL	SF31DG	SF31GG	SF31JG	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	V
Maximum RMS Voltage	V_{RMS}	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	V
Maximum Average Forward Rectified Current @T_A=55℃	$I_{(AV)}$	3.0			A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)	I_{FSM}	80			A
Maximum forward Voltage at 3.0A DC	V_F	0.95	1.25	1.7	V
Maximum DC Reverse Current @T_J = 25℃ at Rated DC Blocking Voltage @T_J =100℃	I_R	5 100			uA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	23	23	25	ns
Maximum Reverse Recovery Time (Note 2)	T_{RR}	30	30	35	ns
Typical Junction Capacitance (Note 3)	C_J	27			pF
Typical Thermal Resistance (Note 4)	$R_{\theta JA}$	20			℃/W
Operating Temperature Range	T_J	-55 to +150			℃
Storage Temperature Range	T_{STG}	-55 to +150			℃

NOTES : 1.Measured with I_F=0.5A,I_R=1.0A,I_{RR}=0.25A.
2.Measured with I_{FM}=3A, -di/dt=50A/us.
3.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
4.Thermal Resistance Junction to Ambient.

REV. 0, 15-Sep-2001, KDGF08

FIG.1 - FORWARD CURRENT DERATING CURVE

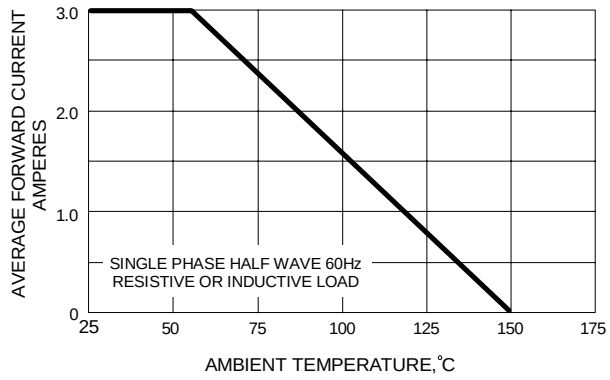


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

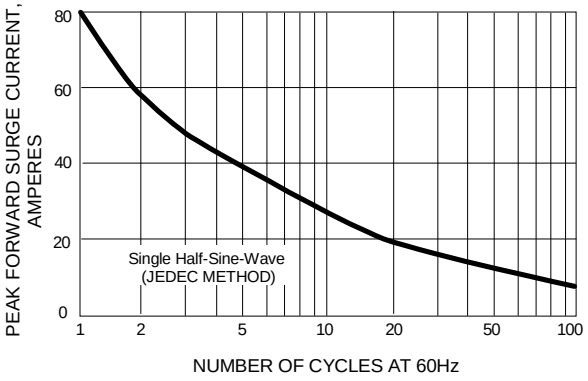


FIG.3 - TYPICAL JUNCTION CAPACITANCE

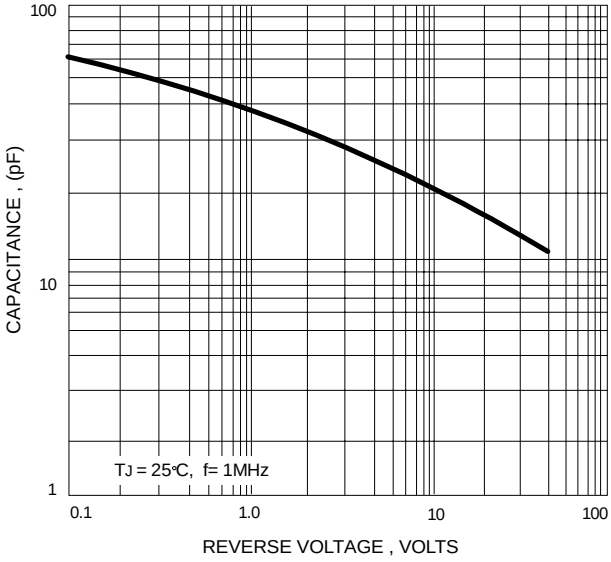


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

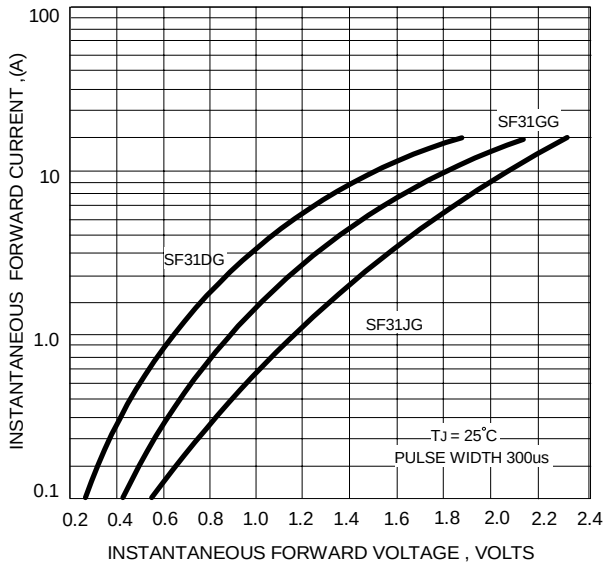


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS