Elektronische Bauelemente

SF31G ~ SF35G

Voltage 50V ~ 600V

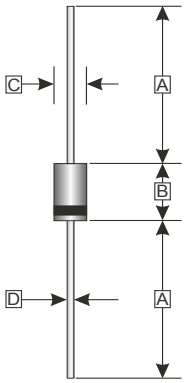
3.0 Amp Glass Passivated Super Fast Rectifiers

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Good for switching mode application

DO-27



REF.	Millimeter	
	Min.	Max.
A	25.4 (TYP)	
B	7.20	9.53
C	4.80	5.60
D	1.20	1.32

PACKAGING INFORMATION

- Glass Passivated
- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 1.1050 grams (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter		Symbol	Part Number					Unit
			SF 31G	SF 32G	SF 33G	SF 34G	SF 35G	
Maximum Recurrent Reverse Voltage		V_{RRM}	50	100	200	400	600	V
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	V
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	V
Maximum Instantaneous Forward Voltage @ I_F=3A		V_F	0.95			1.3	1.70	V
Maximum Average Forward Rectified Current @0.375" (9.5mm) lead length @ T_L=55°C		I_O	3					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	125					A
Maximum DC Reverse Current	T_J=25°C	I_R	5.0					μA
	T_J=125°C		250					
Maximum Reverse Recovery Time [1]		T_{RR}	35					nS
Typical Thermal Resistance		$R_{\theta JA}$	50					°C / W
Typical Junction Capacitance [2]		C_J	60					pF
Storage Temperature Range		T_{STG}	-55~150					°C

Note:
1. I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
2. f=1MHz and applied 4V DC reverse voltage

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RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

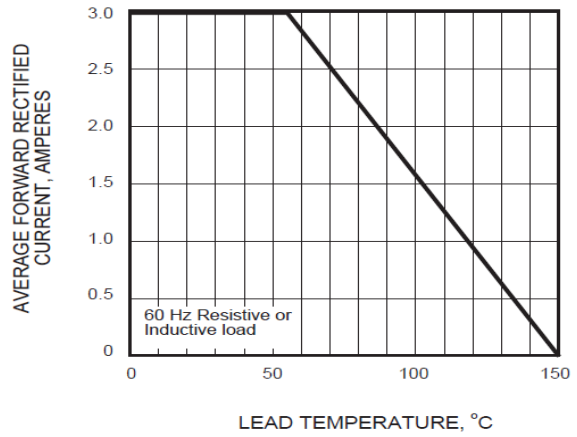

FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

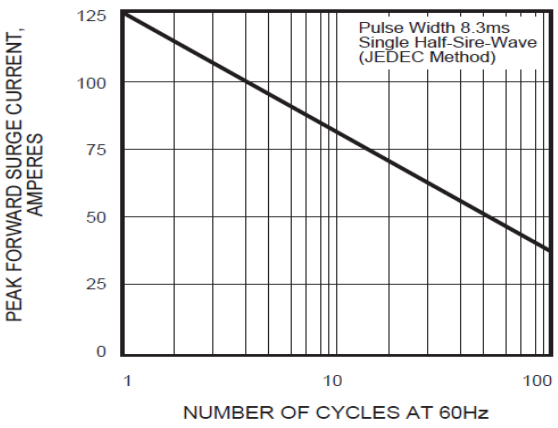

FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

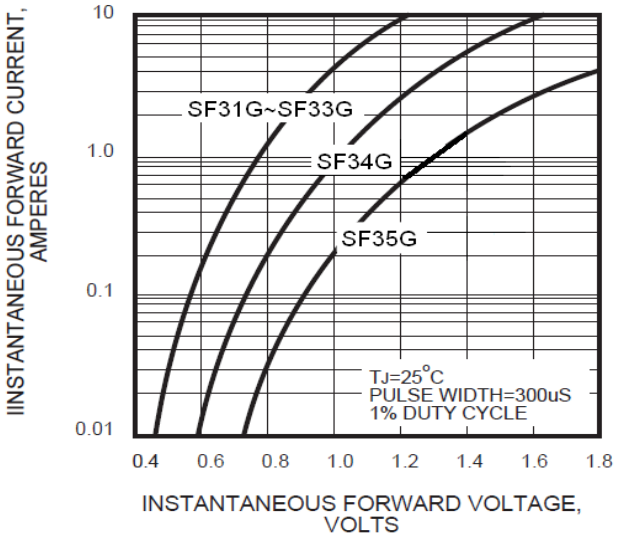

FIG.4 - TYPICAL REVERSE CHARACTERISTICS

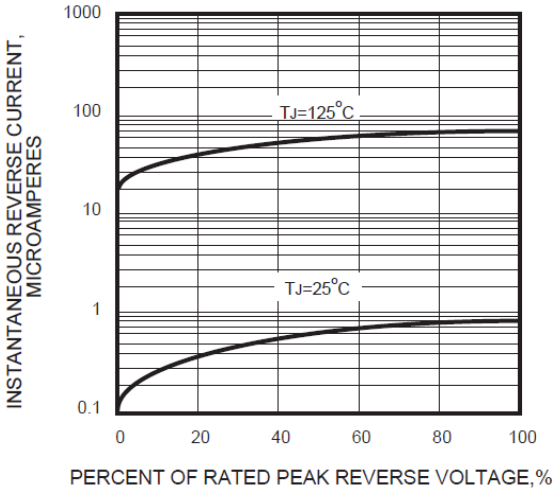

FIG.5 - TYPICAL JUNCTION CAPACITANCE