Elektronische Bauelemente

SF53GR ~ SF55GR

Voltage 200V ~ 600V

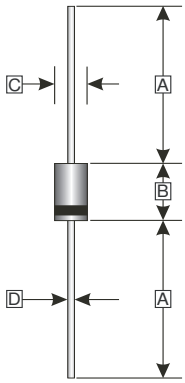
5.0 Amp Glass Passivated Super Fast Rectifiers

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

ABSOLUTE MAXIMUM RATINGS (T_A=25℃ unless otherwise specified)

Parameter	Symbol	Part Number			Unit
		SF53GR	SF54GR	SF55GR	
Maximum Recurrent Reverse Voltage	V_{RRM}	200	400	600	V
Average Forward Current @ 60H_Z Half-sine wave, Resistance load, T_A(FIG 1)	$I_{F(AV)}$	5			A
Surge(Non-repetitive)Forward Current @60H_Z Half-sine wave, 1 cycle, T_A=25℃	I_{FSM}	150			A
Junction Temperature	T_J	-50~+150			℃
Storage Temperature Range	T_{STG}	-50~+150			℃

ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise specified)

Parameter		Symbol	Part Number			Unit
			SF53GR	SF54GR	SF55GR	
Peak Forward Voltage @ I_{FM}=5A		V_{FM}	0.95	1.3	1.7	V
Peak Reverse Current	T_A=25°C	I_{RRM}	5			μA
	T_A=125°C		150			
Maximum Reverse Recovery Time [1]		T_{RR}	35			nS
Typical Thermal Resistance		$R_{\theta JC}$	15			℃ / W
Typical Junction Capacitance [2]		C_J	100	80		pF

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

Elektronische Bauelemente

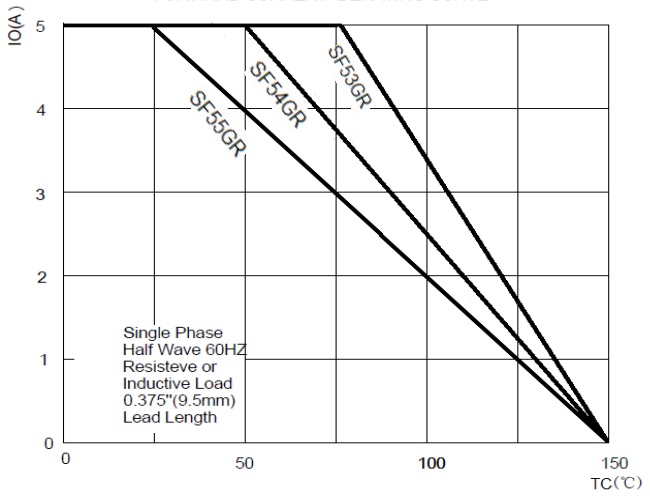
SF53GR ~ SF55GR

Voltage 200V ~ 600V

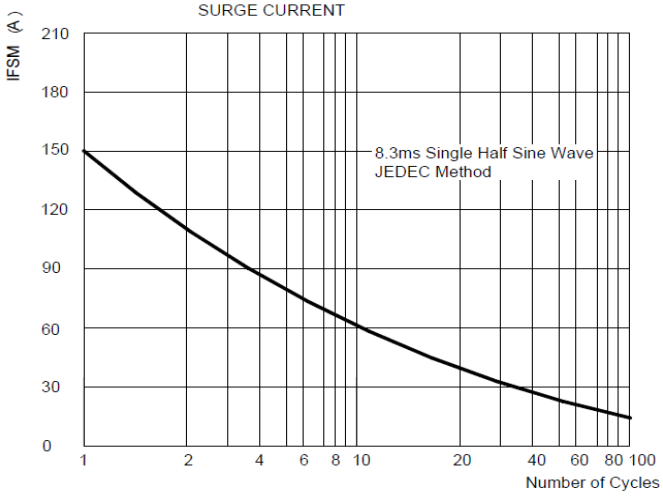
5.0 Amp Glass Passivated Super Fast Rectifiers

RATINGS AND CHARACTERISTIC CURVES

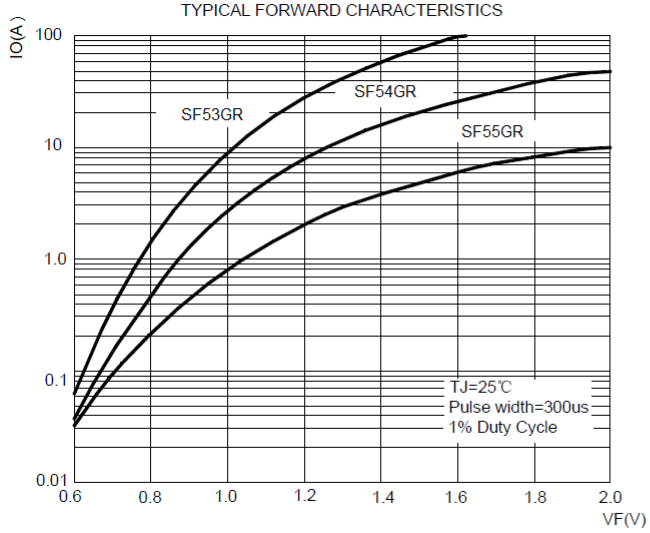
FORWARD CURRENT DERATING CURVE



MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



TYPICAL FORWARD CHARACTERISTICS



TYPICAL REVERSE CHARACTERISTICS

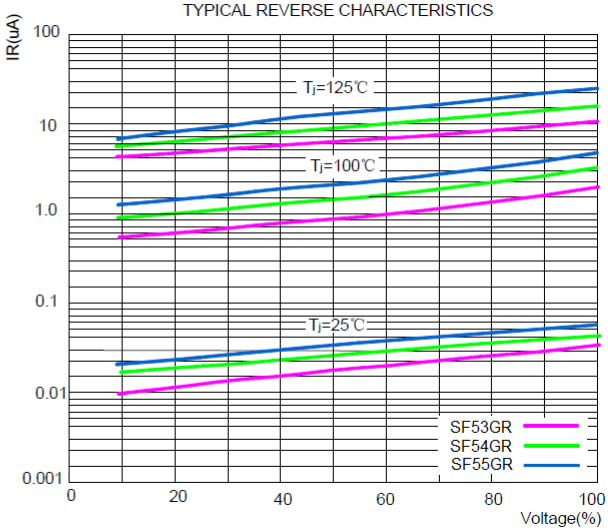


Diagram of circuit and Testing wave form of reverse recovery time