

2.0 Amp Surface Mount Glass Passivated Fast Recovery Rectifiers

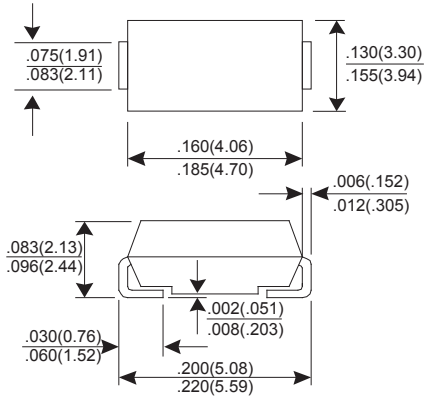
Mechanical Dimensions

SFRS20G~210G

Description



SMB/DO-214AA



Features

- ★ Fast switching for high efficiency
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability
- ★ Glass passivated chip

Mechanical Data

- ★ Case: Molded plastic SMB/DO-214AA
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-750 method 2026
- ★ Polarity: Color band denotes cathode
- ★ Mounting position: Any
- ★ Weight: 0.093 gram

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%.

	SYMBOL	FRS20G	FRS21G	FRS22G	FRS24G	FRS26G	FRS28G	FRS210G	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current T _A =90°C	I _{F(AV)}	2.0							A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	60							A
Maximum Instantaneous Forward Voltage @ 2.0 A	V _F	1.3							V
Maximum DC Reverse Current @T _J =25°C At Rated DC Blocking Voltage @T _J =125°C	I _R	5.0 100							uA uA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	150			250		500		nS
Typical junction Capacitance (Note 2)	C _J	50							pF
Typical Thermal Resistance (Note 3)	R _{θJA}	55							°CW
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55 to + 150							°C

NOTES : (1) Reverse recovery test conditions I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A.
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.
 (3) Thermal Resistance junction to ambient.



RATINGS AND CHARACTERISTIC CURVES FRS20G THRU FRS210G

FIG.1 - FORWARD CURRENT DERATING CURVE

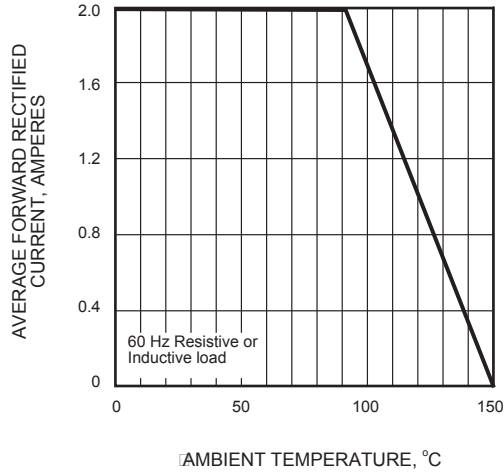


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

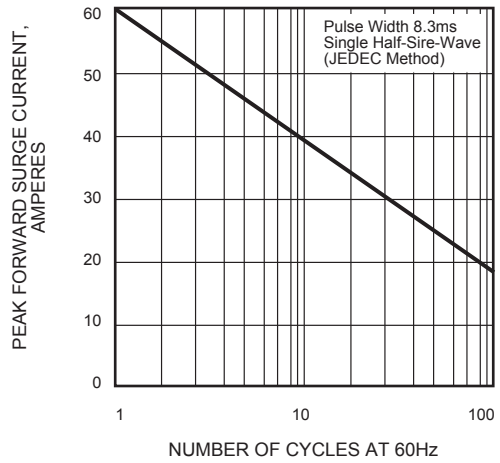


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

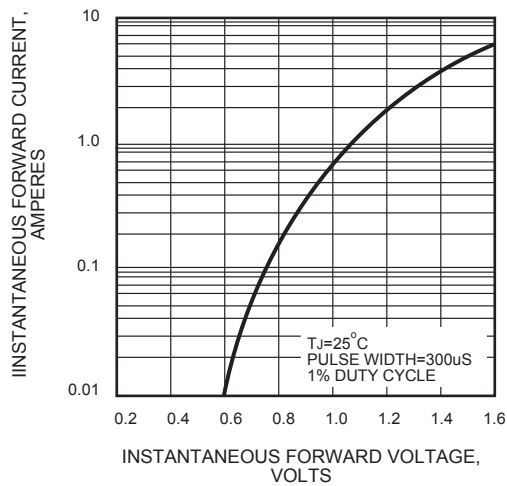


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

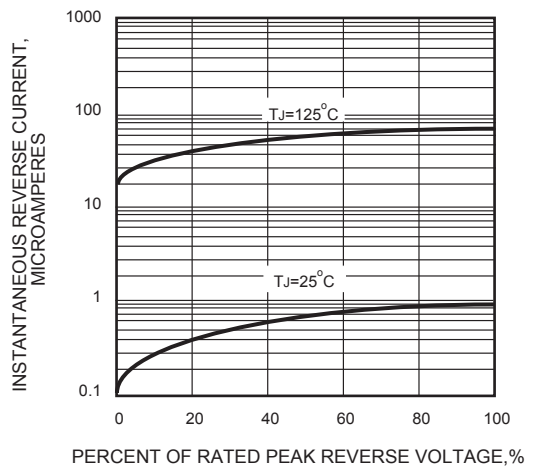


FIG.5 - TYPICAL JUNCTION CAPACITANCE

