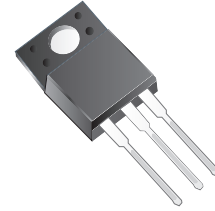


SF1010-G Thru. SF1060-G

Reverse Voltage: 50 to 600 Volts

Forward Current: 10 Amp

RoHS Device

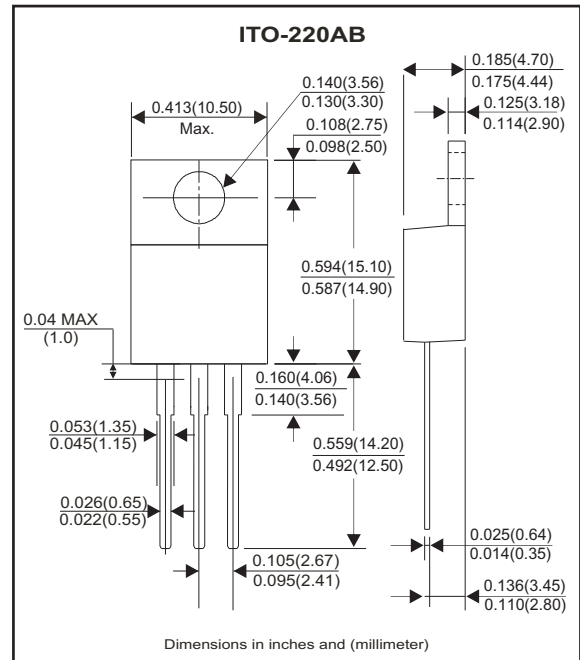


Features

- Fast switching for high efficiency.
- Low forward voltage drop.
- High surge capacity.
- Low reverse leakage current.
- High surge current capability.

Mechanical data

- Epoxy: UL 94-V0 rated flame retardant.
- Case: Molded plastic ITO-220AB
- Terminals: Lead solderable per MIL-STD-202, method 208.
- Polarity: Color band denotes cathode.
- Mounting position: Any
- Weight: 1.73 grams (approx).



Maximum Ratings and Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

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

Parameter	Symbol	SF 1010-G	SF 1020-G	SF 1030-G	SF 1040-G	SF 1050-G	SF 1060-G	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	300	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	V
Maximum average forward rectified current @ $T_c=100^\circ\text{C}$	$I_{F(AV)}$	10						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD)	I_{FSM}	100						A
Maximum instantaneous forward voltage @ 5.0A	V_F	0.95		1.30		1.70		V
Maximum DC reverse current at rate DC blocking voltage @ $T_J=25^\circ\text{C}$ @ $T_J=125^\circ\text{C}$	I_R	10 250						μA
Max. Reverse recovery time (Note 1)	T_{rr}	35						nS
Typical junction capacitance (Note 2)	C_J	65						PF
Typical thermal resistance (Note 3)	$R_{\theta JC}$	2.2						$^\circ\text{C/W}$
Operating junction range	T_J	-55 to +150						$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150						$^\circ\text{C}$

- Notes: 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 1.0 MHz and applied reverse voltage of 4.0 volts DC.
 3. Thermal resistance junction to case.

Rating and Characteristic Curves (SF1010-G Thru. SF1060-G)

Fig.1- Typical Forward Current Derating Curve

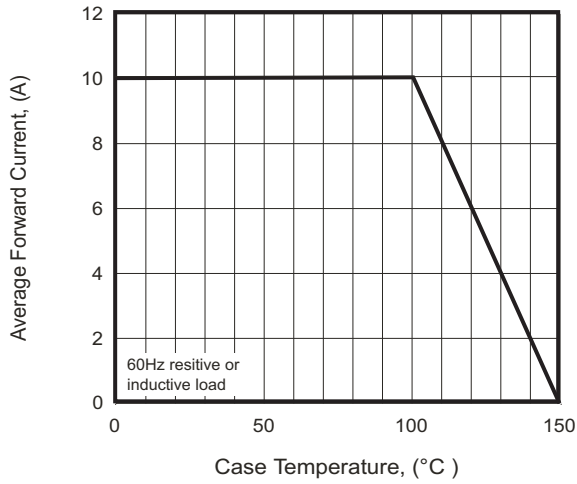


Fig.2- Maximum Non-Repetitive Forward Surge Current

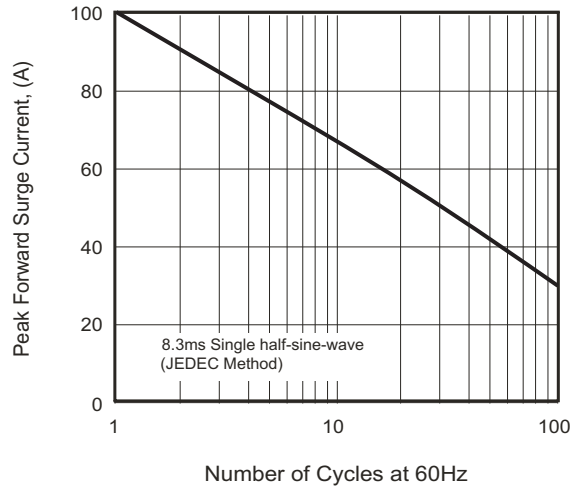


Fig.3- Typical Instantaneous Forward Characteristics

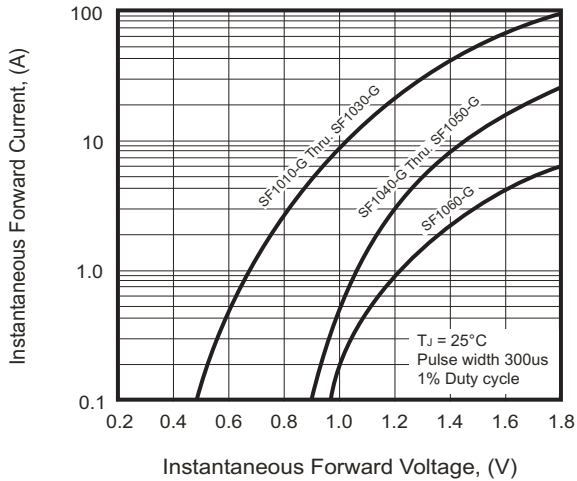


Fig.4- Typical Reverse Characteristics

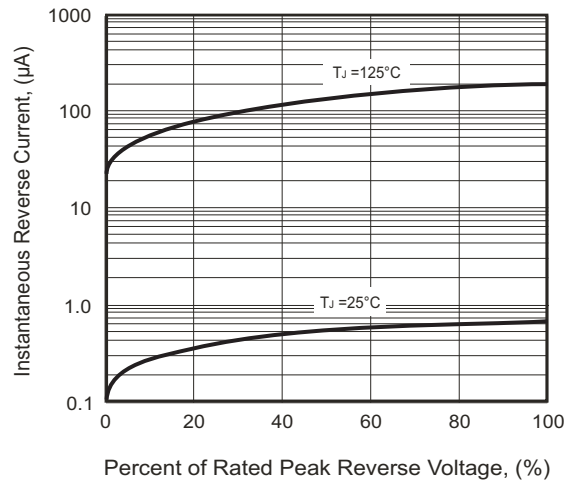
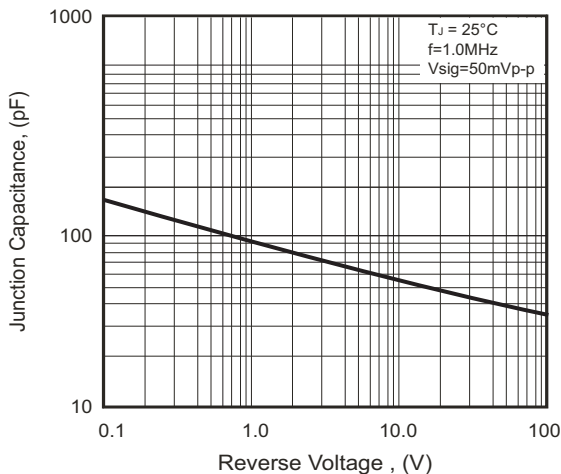
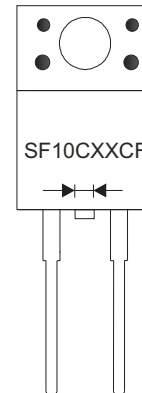


Fig.5- Typical Junction Capacitance



Marking Code

Part Number	Marking code
SF1010-G	SF10C01CF
SF1020-G	SF10C02CF
SF1030-G	SF10C03CF
SF1040-G	SF10C04CF
SF1050-G	SF10C05CF
SF1060-G	SF10C06CF



XX = Product type marking code

Standard Packaging

Case Type	TUBE PACK		
	TUBE (EA)	BOX (EA)	CARTON (EA)
ITO-220AB	50	2,000	8,000