YENYO

SF301G THRU SF306G

Glass Passivated Super Fast Recovery Rectifier

Voltage Range 50 to 600 V
Current 3.0 Ampere

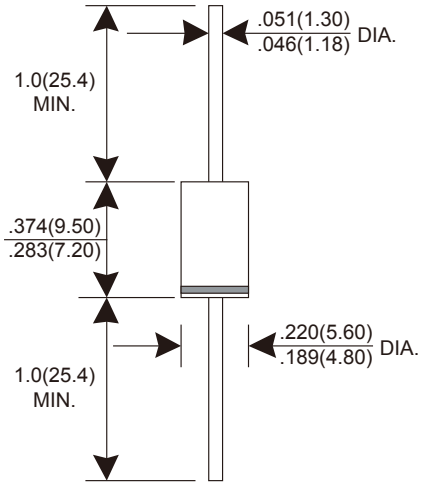
Features

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

Mechanical Data

- ✶ Case: Molded plastic, DO-201AD
- ✶ Epoxy: UL 94V-0 rate flame retardant
- ✶ Terminals: Solderable per MIL-STD-202, method 208
- ✶ Polarity: Color band denotes cathode end
- ✶ Mounting position: Any

DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	SF301G	SF302G	SF303G	SF304G	SF305G	SF306G	UNIT
Maximum repetitive 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_A=55℃	$I_{F(AV)}$	3.0						A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	125						A
Maximum instantaneous forward voltage @ I_F=3.0A	V_F	0.95			1.3		1.7	V
Maximum DC reverse current @T_A=25℃ at rated DC blocking voltage @T_A=125℃	I_R	1 150						μA
Maximum reverse recovery time (Note 1)	t_{rr}	35						ns
Typical junction capacitance (Note 2)	C_J	120			90			pF
Typical thermal resistance from junction to ambient (Note 3)	$R_{\theta JA}$	25						℃/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150						℃

NOTES : (1) Reverse recovery test conditions I_F = 0.5A, I_R = 1.0A, Irr = 0.25A.
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.
(3) Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length, PCB mounted.

RATINGS AND CHARACTERISTICS CURVES SF301G THRU SF306G

Fig.1 - Forward Current Derating Curve

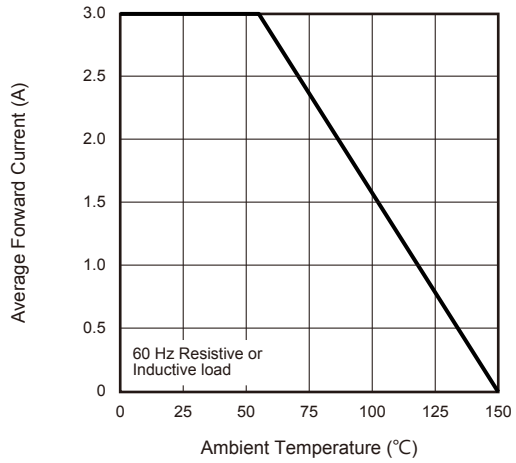


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

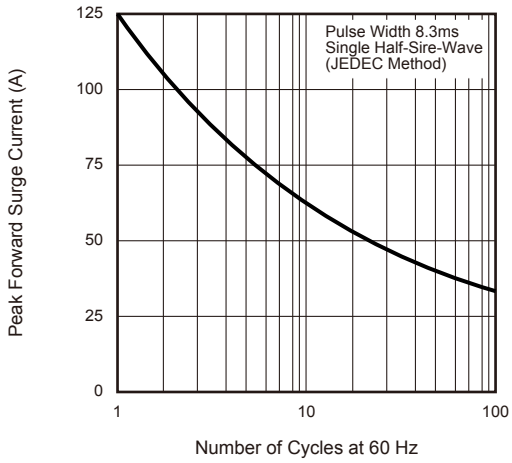


Fig.3 - Typical Instantaneous Forward Characteristics

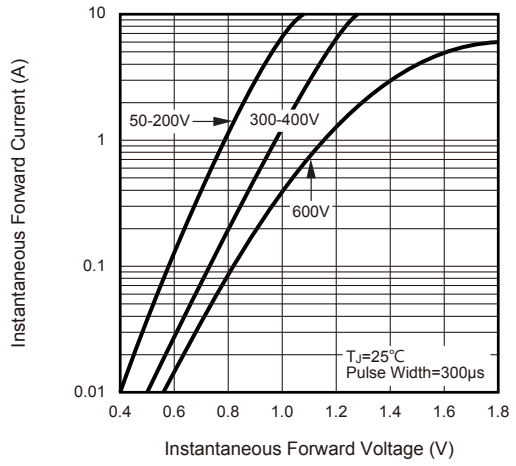


Fig.4 - Typical Reverse Leakage Characteristics

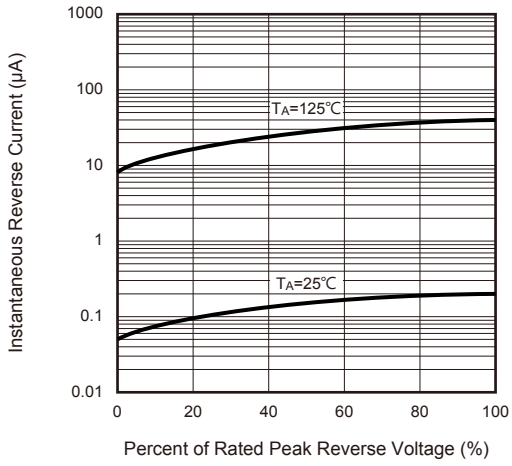


Fig.5 - Typical Junction Capacitance