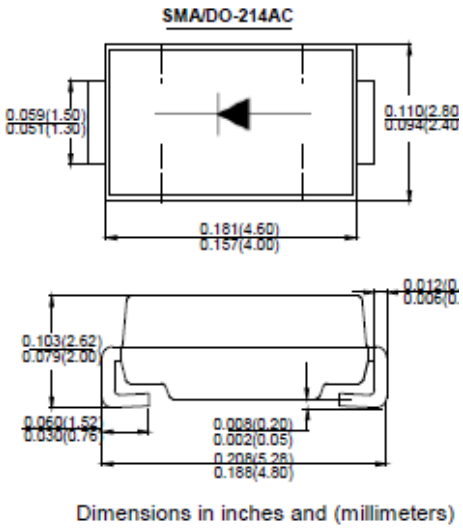
SUPER FAST RECTIFIER

S11 THRU S18

Features

- •Low Power Loss, High Efficiency
- •Ideally Suited for Automatic Assembly
- •Guard Ring Die Construction
- •Plastic Case Material has UL Flammability Classification Rating 94V- 0



Dimensions in inches and (millimeters)

Mechanical Data

Case: molded plastic SMA/DO-214AC

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026 guaranteed

Polarity: Color band denotes cathode end

Mounting position: Any

Making: Type Number

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified

Single phase, half wave, 60 Hz, resistive or inductive load

For capacitive load, derate current by 20%

TYPE NUMBER	Symbols	S11	S12	S14	S16	S17	S18	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	500	600	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	350	420	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	500	600	V
Maximum average forward rectified current 9.5mm lead length at T_A=75℃	$I_{F(AV)}$	1.0						A
Peak Forward Surge Current,8.3ms single half-wave superimposed on rated load(JEDEC method)	I_{FSM}	30						A
Maximum instantaneous forward voltage at1.0A	V_F	0.95			1.25	1.7		V
Maximum DC reverse current Ta=25℃ At rated DC blocking voltage Ta=100℃	I_R	5.0 100						μA
Maximum reverse recovery time(**Note:** 1)	T_{rr}	35						nS
Operating junction temperature range	T_J	-55to+150						℃
Storage temperature range	T_{stg}	-55to+150						℃

Note: 1. Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A.

Characteristic Curves

Fig. 1 – Forward Current Derating Curve

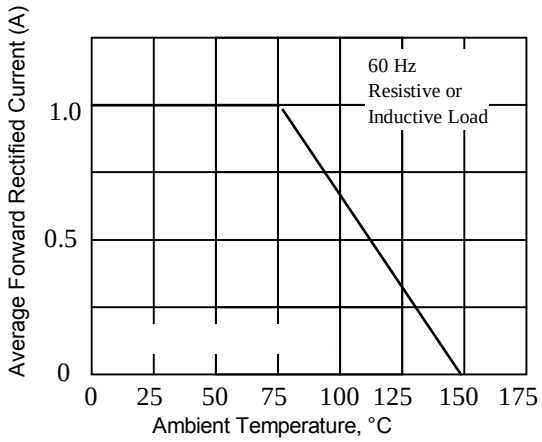


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

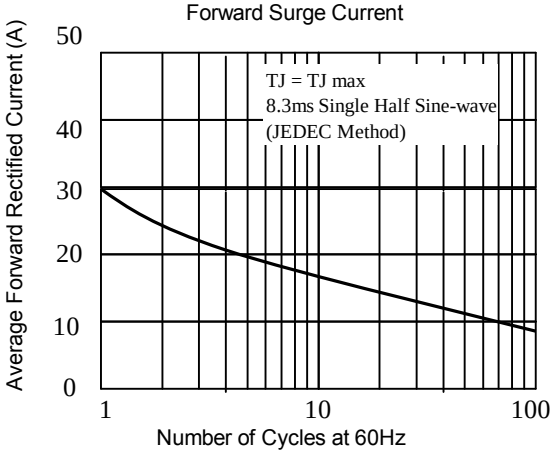


Fig 3. – Typical Instantaneous Forward Characteristics

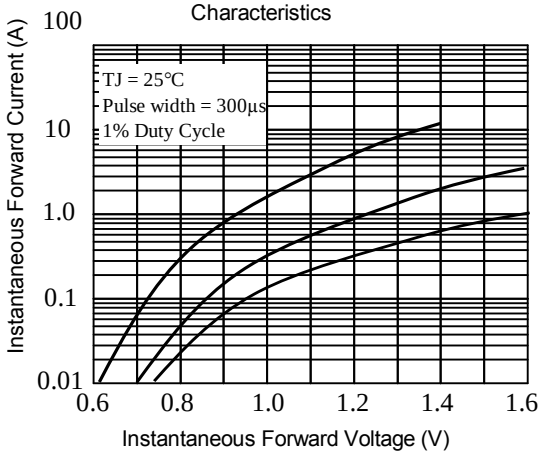


Fig 4. – Typical Reverse Characteristics

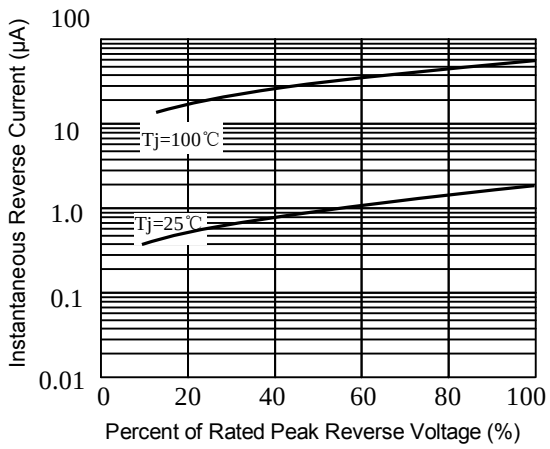


Fig 5. –typical Junction Capacitance