

FS1A THRU FS1M

Features

- Fast switching for high efficiency
- Low Power Loss, High Efficiency
- High current capability
- For Use in Low Voltage Application
- Plastic Case Material has UL Flammability Classification Rating 94V-0

Mechanical Data

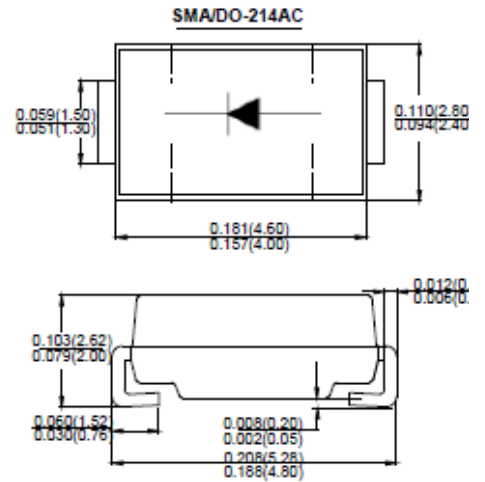
Case: molded plastic SMA/DO-214AC

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

Polarity: Color band denotes cathode end

Mounting position: Any

Making: Type Number



Dimensions in inches and (millimeters)

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%

Type Number	SYMBOL	FS1A	FS1B	FS1D	FS1G	FS1J	FS1K	FS1M	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
Average Rectified Output Current @ $T_L=100^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Forward Voltage @ $I_F=1.0\text{A}$	V_{FM}	1.3							V
Peak Reverse Current @ $T_A=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$	I_R	5.0 200							μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	150			250		500		ns
Typical Junction Capacitance (Note 2)	C_J	8							pF
Typical Thermal Resistance Junction to Ambient(Note 3)	$R_{\theta JA}$	75							$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

Note: 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 1MHz and applied reverse voltage of 4.0V D.C.

3. Resistance from Junction to Ambient at 0.375(9.5mm) lead length .

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Characteristic Curves

Fig. 1 - Forward Current Derating Curve

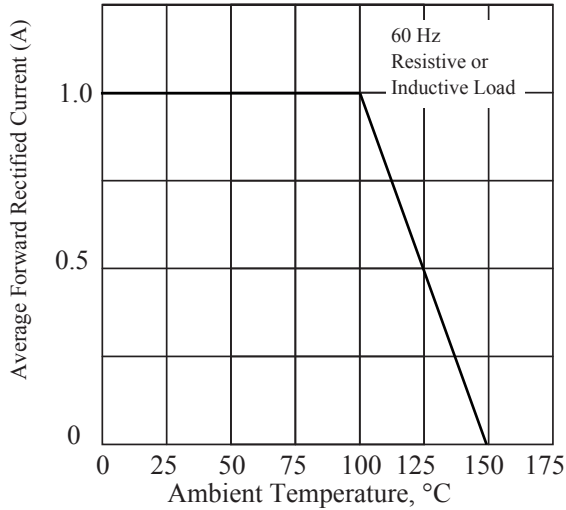


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

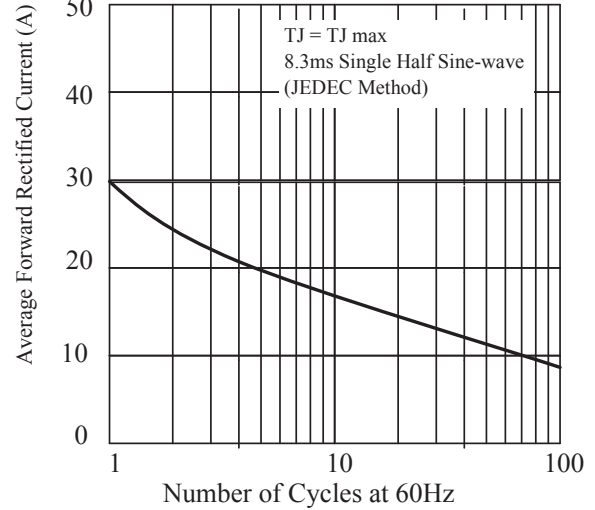


Fig 3. - Typical Instantaneous Forward Characteristics

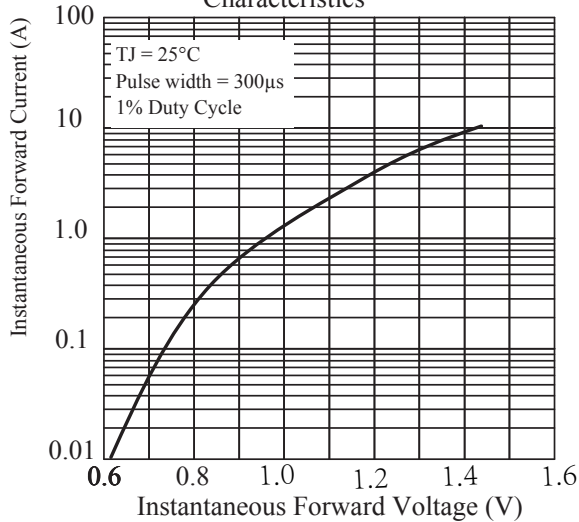


Fig 4. - Typical Reverse Characteristics

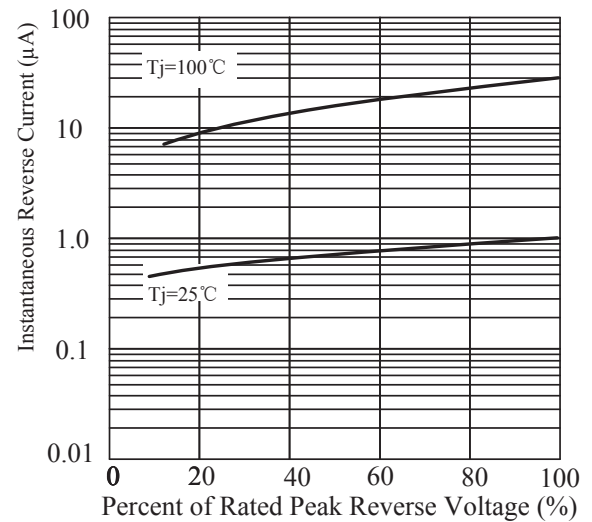


Fig 5. - Typical Junction Capacitance

