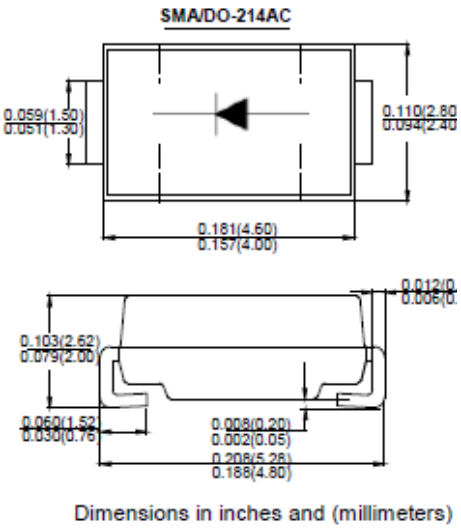
2.0Amp Surface Mount General Purpose Rectifiers

S2A THRU S2M

Features

- For surface mounted application
- Low forward voltage drop
- High current capability
- High reliability
- Classification Rating 94V- 0



Dimensions in inches and (millimeters)

Mechanical Data

Case: molded plastic SMA/DO-214AC

Polarity: Color band denotes cathode end

Mounting position: Any

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

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%

Type Number	Symbol	S2A	S2B	S2D	S2G	S2J	S2K	S2M	Units
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 @Tc = 75℃	$I_{(AV)}$	2.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	50							A
Maximum Instantaneous Forward Voltage @ 2.0A	V_F	1.1							V
Maximum DC Reverse Current @ TA=25℃ at Rated DC Blocking Voltage @ TA=100℃	I_R	5.0 100.0							uA
Typical junction capacitance (NOTE 1)	C_J	30							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	135							℃/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							℃

Note:

1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. 8.0mm2 (.013mm thick) land areas

Characteristic Curves

Fig. 1 – Forward Current Derating Curve

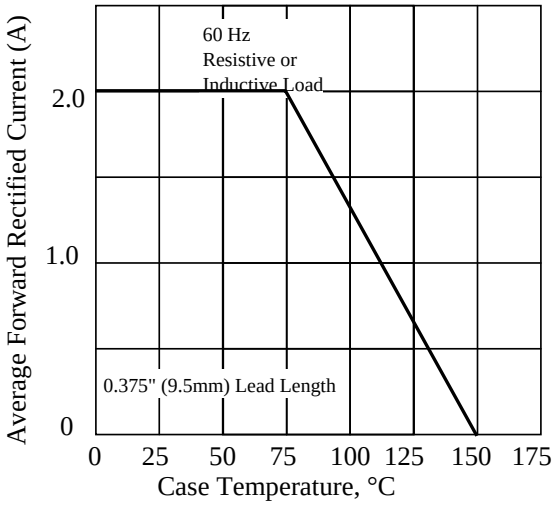


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

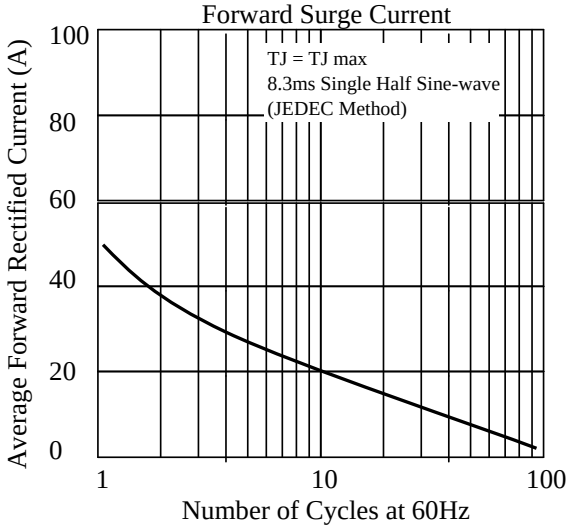


Fig 3. – Typical Instantaneous Forward Characteristics

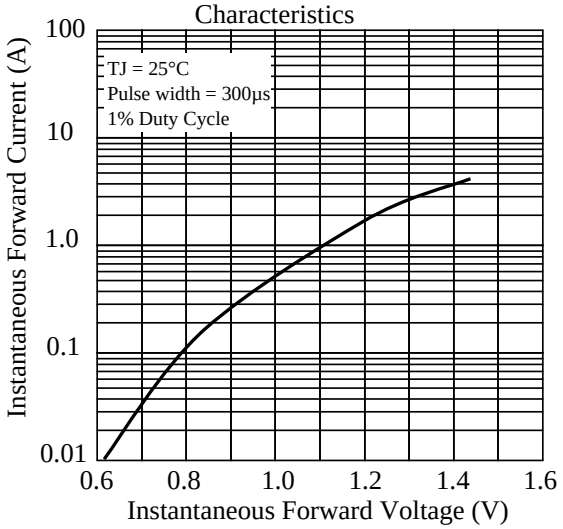


Fig 4. – Typical Reverse Characteristics

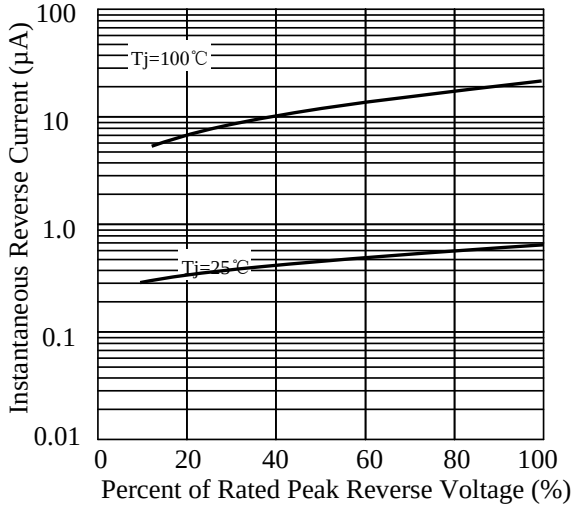


Fig 5. – typical transient thermal impedance

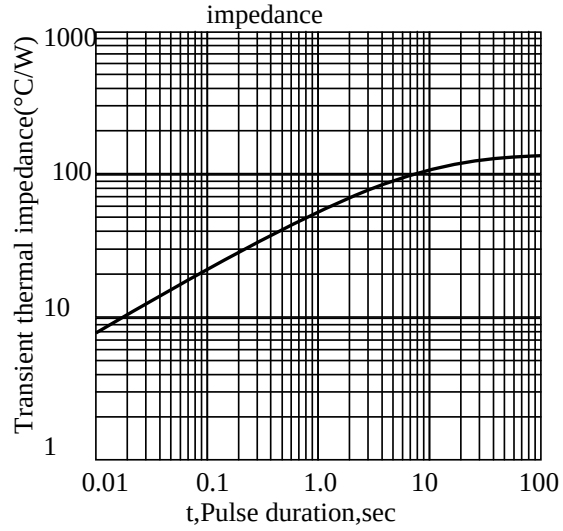


Fig 6. – Typical Junction Capacitance