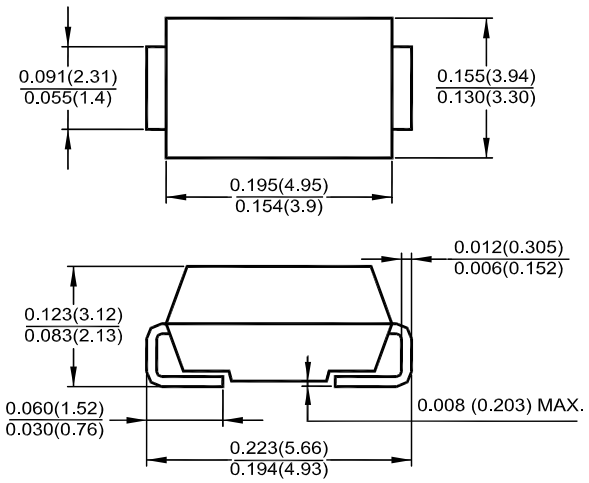
RS2AD THRU RS2MD

Surface Mount Fast Recovery Rectifiers
Reverse Voltage – 50 to 1000 V
Forward Current – 2 A

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Fast switching for high efficiency
- Built-in strain relief, ideal for automated placement
- Low reverse leakage
- High forward surge current capability
- For surface mounted applications
- High temperature soldering guaranteed:250 °C /10 seconds at terminals.

SMB (DO-214AA)



Dimensions in inches and (millimeters)

Mechanical Data

- **Case:** Molded plastic body, JEDEC SMB (DO-214AA)
- **Terminals:** Solder plated, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end.
- **Mounting Position:** Any

Absolute Maximum Ratings and Characteristics

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

Parameter	Symbols	RS2AD	RS2BD	RS2DD	RS2GD	RS2JD	RS2KD	RS2MD	Units
Maximum Repetitive 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 at T_L = 90 °C	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3 ms Single half Superimposed on Rated Load (JEDEC method)	I_{FSM}	50							A
Maximum Instantaneous Forward Voltage at 2 A	V_F	1.3							V
Maximum DC Reverse Current T_a = 25 °C at Rated DC Blocking Voltage T_a = 100 °C	I_R	5 50							μA
Maximum Reverse Recovery Time [1]	t_{rr}	150			250	500			ns
Typical Junction Capacitance [2]	C_j	50							pF
Typical Thermal Resistance [3]	$R_{\theta JA}$	20							°C/W
Operating Junction Temperature Range	T_j	- 65 to + 150							°C
Storage Temperature Range	T_{stg}	- 65 to + 150							°C

[1] Reverse recovery condition I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A.
[2] Measured at 1 MH_Z and applied reverse voltage of 4 V.
[3] P.C.B mounted with 0.2 × 0.2" (5 × 5 mm) copper pad areas.

FIG. 1-Forward Current Derating Curve

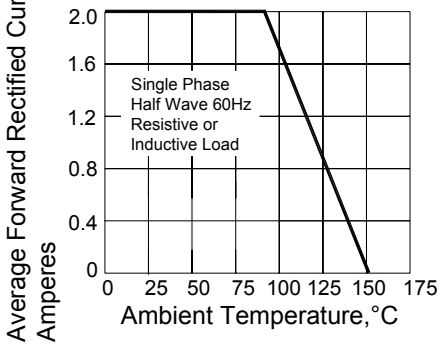


FIG. 2-Maximum Non-Repetitive Peak Forward Surge Current

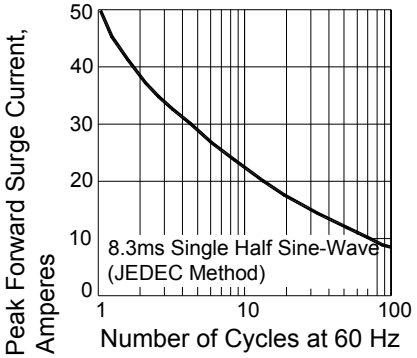


FIG. 3-Typical Instantaneous Forward Characteristics

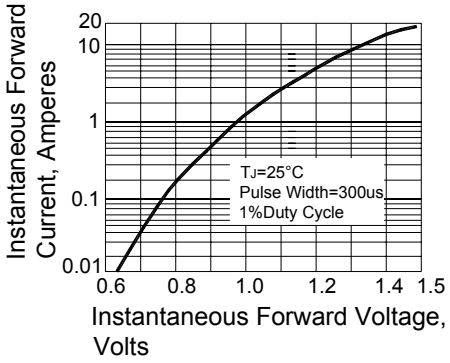


FIG. 4-Typical Reverse Characteristics

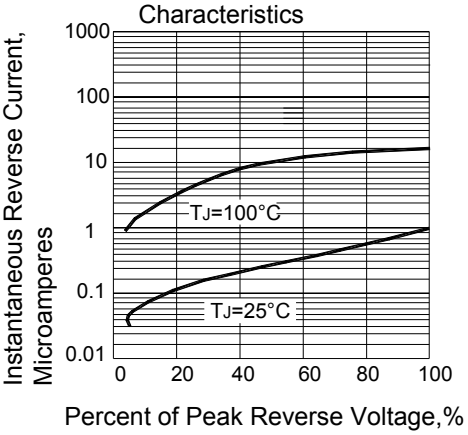


FIG.5-Typical Junction Capacitance

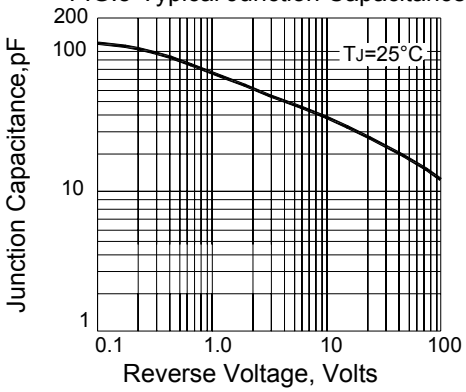


FIG.6-Typical Transient Thermal Impedance