



RS2A THRU RS2M

Surface Mount Fast Recovery Rectifier

Features

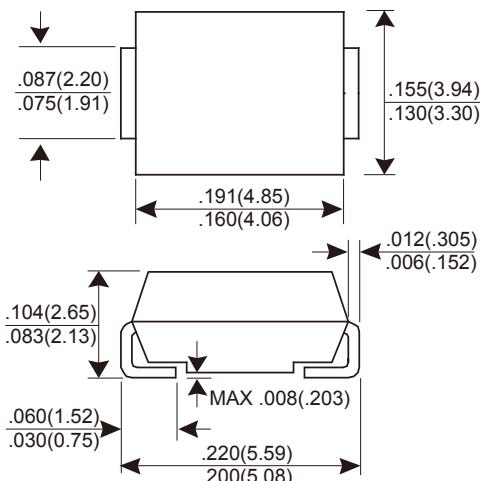
- ★ Fast switching for high efficiency
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability

Mechanical Data

- ★ Case: Molded plastic, SMB/DO-214AA
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-750, method 2026
- ★ Polarity: Color band denotes cathode end
- ★ Mounting position: Any

**Voltage Range 50 to 1000 V
Current 2.0 Ampere**

SMB/DO-214AA



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%.

PARAMETER	SYMBOL	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	UNIT				
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 @T _L =100°C	I _{F(AV)}	2.0						A					
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	50						A					
Maximum instantaneous forward voltage @ I _F =2.0A	V _F	1.3						V					
Maximum DC reverse current @T _A =25°C at rated DC blocking voltage @T _A =125°C	I _R	5 200						µA					
Maximum reverse recovery time (Note 1)	t _{rr}	150		250		500		ns					
Typical junction capacitance (Note 2)	C _J	50						pF					
Typical thermal resistance from junction to ambient (Note 3)	R _{θJA}	55						°C/W					
Typical thermal resistance from junction to lead (Note 3)	R _{θJL}	18						°C/W					
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150						°C					

NOTES : (1) Reverse recovery test conditions I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A.

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

(3) Mounted on PCB with 0.27" x 0.27" (7.0 mm x 7.0 mm) copper pad areas.

RATINGS AND CHARACTERISTICS CURVES RS2A THRU RS2M

Fig.1 - Forward Current Derating Curve

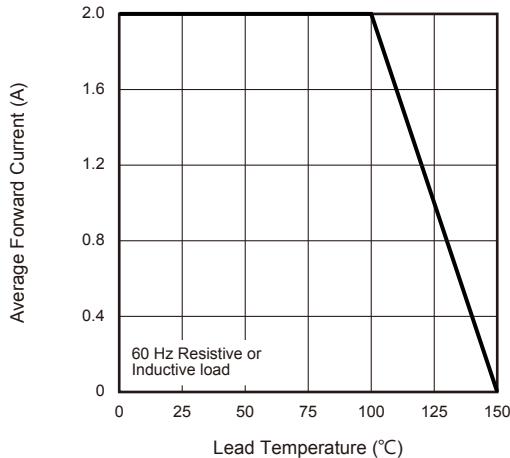


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

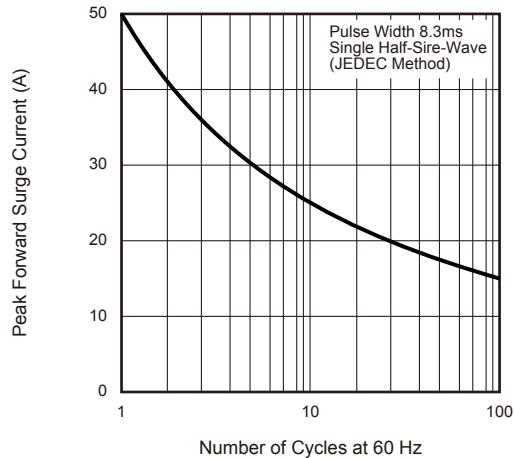


Fig.3 - Typical Instantaneous Forward Characteristics

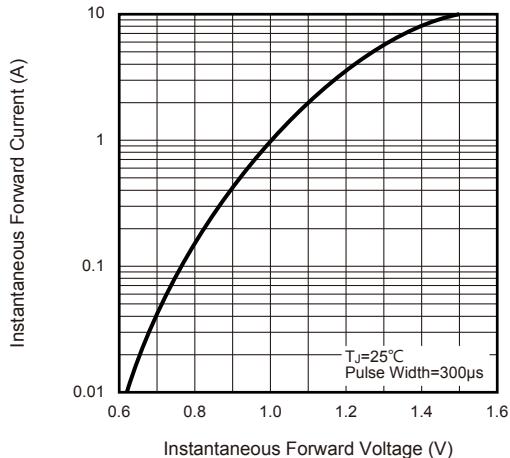


Fig.4 - Typical Reverse Leakage Characteristics

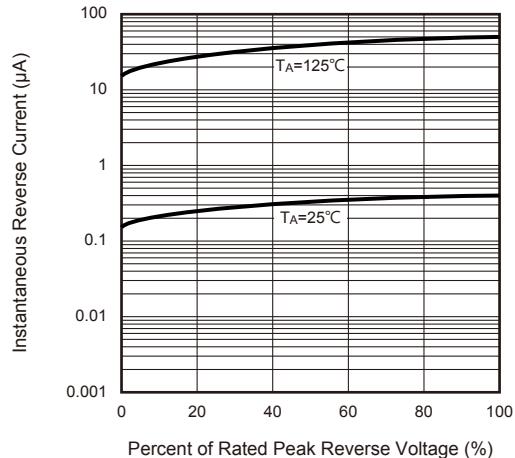


Fig.5 - Typical Junction Capacitance

