

Surface Mount Fast Recovery Rectifiers

Features

- Fast switching for high efficiency
- Low reverse leakage current
- High current capability
- Low forward voltage drop
- Low cost
- Meet UL flammability classification 94V-0

Mechanical Data

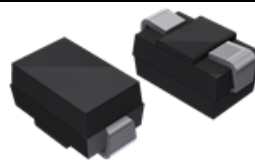
- Case: JEDEC A-SMA molded plastic
- Polarity: Color band denotes cathode
- Mounting position: Any

Applications

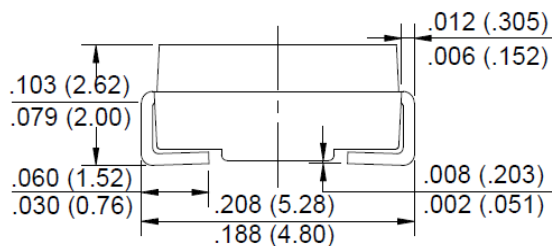
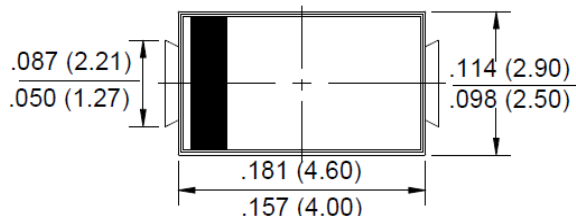
- For use in SMPS, high frequency inverters, PWM and polarity protection applications

Reverse Voltage - 50 to 1000Volts
Forward Current - 1.0 Amperes

A-SMA



RoHS
COMPLIANT



Package Outline Dimensions in Inches (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%.

Characteristics	Symbol	RS1AA	RS1BA	RS1DA	RS1GA	RS1JA	RS1KA	RS1MA	Unit
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @TA=75 °C	I(AV)	1.0							A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	IFSM	30							A
Peak Forward Voltage at 1.0A DC (Note1)	VF	1.3							V
Maximum DC Reverse Current @TJ=25°C	IR	5.0							uA
at Rated DC Blocking Voltage @TJ=100°C		100							
Maximum Reverse Recovery Time (Note 2)	Trr	150				250	500		nS
Typical Junction Capacitance (Note3)	CJ	25				15			pF
Typical Thermal Resistance Junction to Lead	RθJL	32							°C/W
Operating Junction Temperature Range	TJ	-55 to+150							°C
Storage Temperature Range	TSTG	-55 to+150							°C

Notes: 1. 300uS pulse width, 2%duty cycle.

2. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$.

3. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

4. The typical data above is for reference only.

Fig. 1 - Forward Current Derating Curve

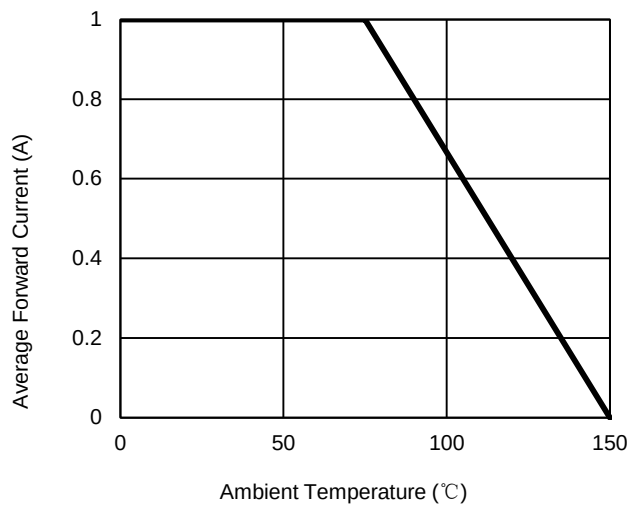


Fig. 2 - Maximum Non-Repetitive Surge Current

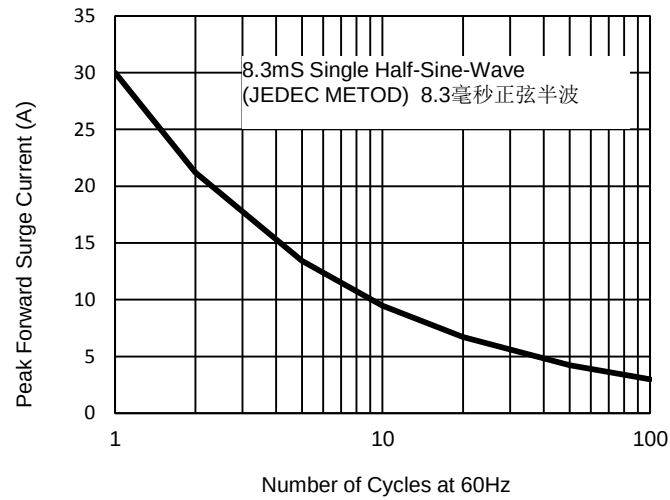


Fig. 3 - Typical Junction Capacitance

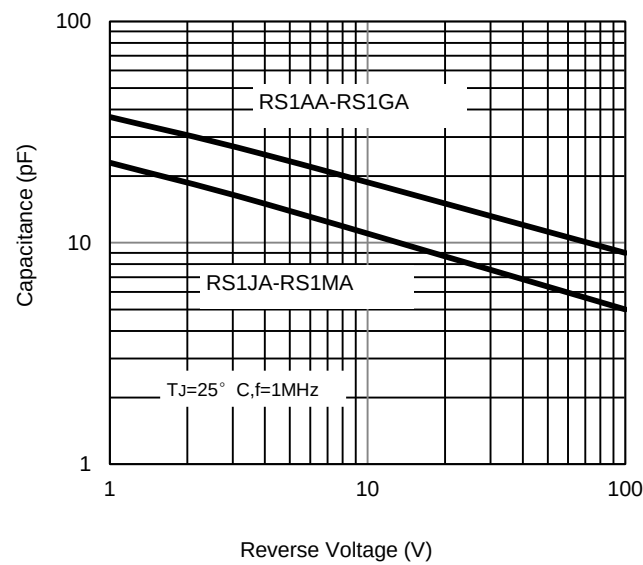
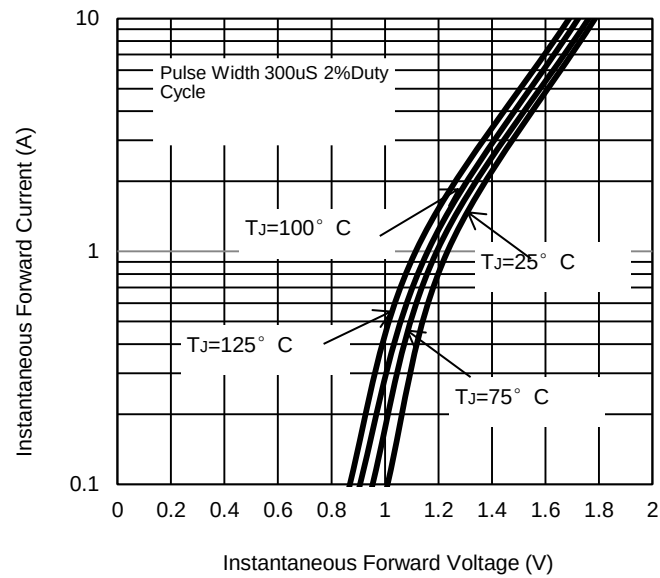


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.

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