

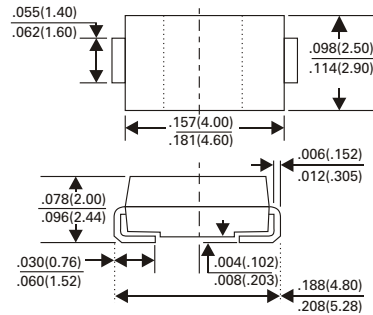
RS1A thru RS1M

SURFACE MOUNT FAST RECOVERY RECTIFIER

VOLTAGE - 50 TO 1000 VOLTS CURRENT - 1.0 AMPERES



SMA/DO-214AC



Dimensions in inches and (millimeters)

FEATURES

- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- Fast switching speed

MECHANICAL DATA

Case : JEDEC DO-214AC molded plastic
Epoxy : UL 94V-0 rate flame retardant
Metallurgically bonded construction
Polarity : Color band denotes cathode end
Mounting position : Any
Weight : 0.063 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	UNITS
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current .0375" (9.5mm)Lead Length at T _A =50°C	I _(AV)	1.0							Amps
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	30							Amps
Maximum Instantaneoue at 1.0A DC	V _F	1.3							Volts
Maximum DC Reverse Current @TA=25°C at Rated DC Blocking Voltage @TA=100°C	I _R	5.0 100							μ A
Maximum Reverse Recovery Time (NOTE 1)	T _{RR}	150				250	500		nS
Typical Junction Capacitance (NOTE 2)	C _J	15							pF
Operating Temperature Range	T _J	+ 175							°C
Storage Temperature Range	T _{STG}	-65 to +175							°C

NOTES :

1. Reverse Recovery Time Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$
2. Measured at 1 MHz and applied reverse Voltage of 4.0VDC

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RATING AND CHARACTERISTICS CURVES RS1A THRU RS1M

Fig. 1 - FORWARD CURRENT DERATING CURVE

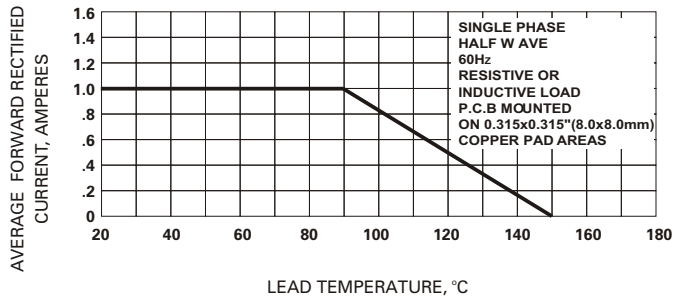


Fig. 2 - TYPICAL JUNCTION CHARACTERISTICS

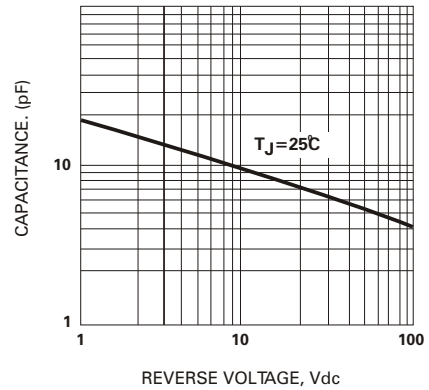


Fig. 3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

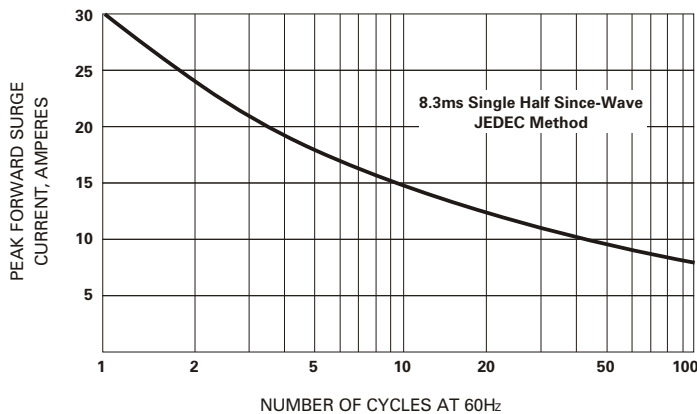


Fig. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

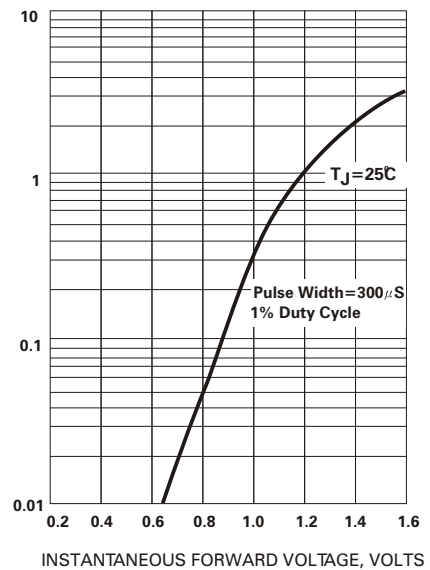


Fig. 5 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

