



RS1A THRU RS1M

VOLTAGE RANGE

50 to 1000 Volts

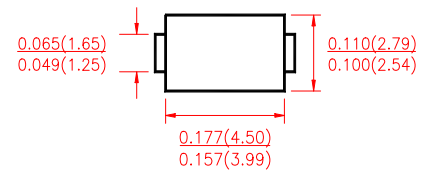
CURRENT

1.0 Ampere

Features

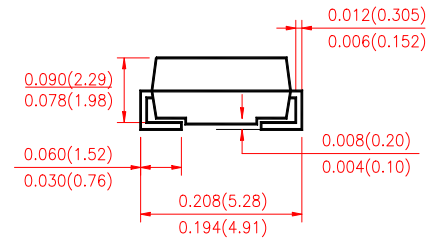
DO-214AC(SMA)

- Fast recovery glass passivated chip
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering: 260°C/10S at terminals
- Component in accordance to ROHS 2002/95/1 and WEEE 2002/96/EC



Mechanical Data

- Case: JEDEC SOD-123FL mold plastic
Body over glass passivated chip
- Terminals: Solder plated, solderable per J-STD-002B and JESD22-B102D
- Polarity: Laser band denote cathode band
- Weight: 0.002 ounce, 0.064 gram



Dimensions in inches and (millimeters)

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%

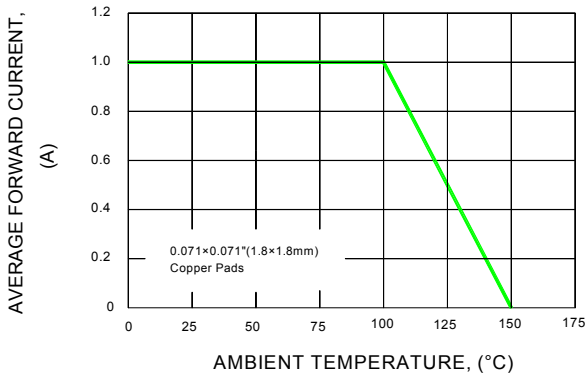
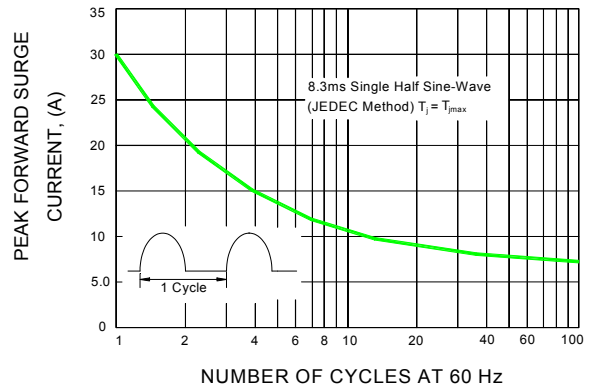
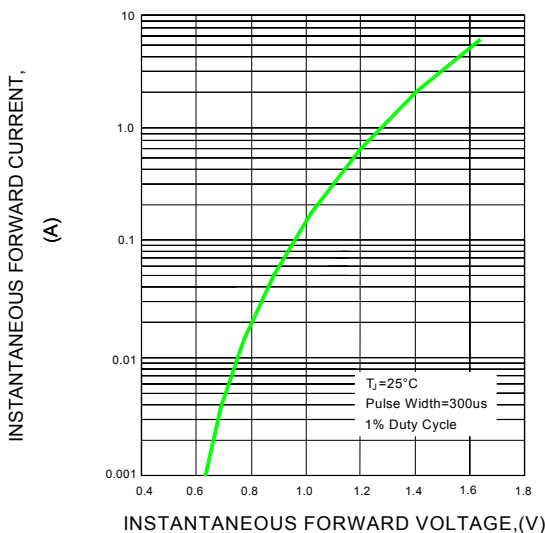
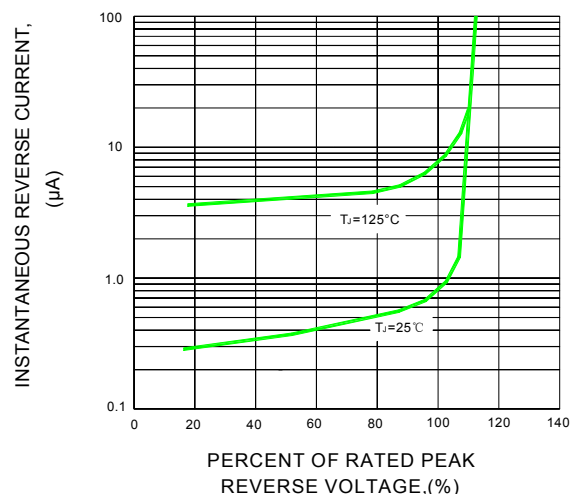
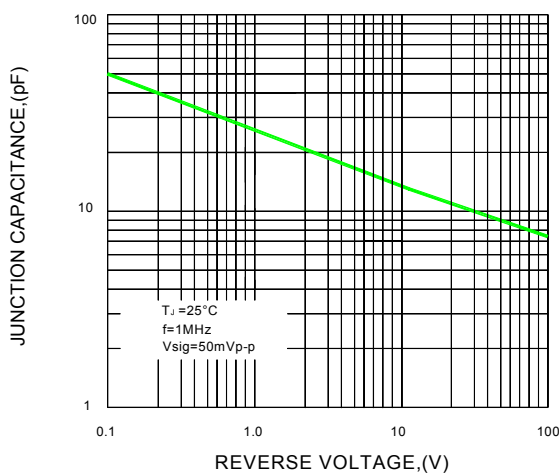
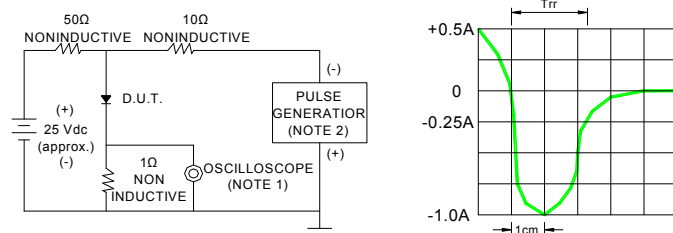
TYPE NUMBER	SYMBOLS	RS 1A	RS 1B	RS 1D	RS 1G	RS 1J	RS 1K	RS 1M	UNITS
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current T _L =90°C	I _(AV)	1.0							Amp
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I _{FSM}	30							Amps
Maximum Instantaneous Forward Voltage @ 1.0A	V _F	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A = 25°C	5.0							μA
	T _A = 100°C	50							
Maximum Reverse Recovery Time (Note 3) T _J =25°C	T _{RR}	150			250		500		nS
Typical Junction Capacitance (Note 1)	C _J	15							pF
Typical Thermal Resistance (Note 2)	R _{θJA}	60							°C/W
Operating Junction Temperature Range	T _J	(-55 to +150)							°C
Storage Temperature Range	T _{STG}	(-55 to +150)							°C

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
2. Thermal Resistance from Junction to Ambient at 1.8×1.8mm² copper pad areas.
3. Reverse Recovery Test Conditions: I_f=0.5mA, I_r=1.0mA, I_{rr}=0.25A



Ratings and Characteristic Curves (TA=25°C unless otherwise noted)

FIG.1-TYPICAL 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-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**

- NOTES : 1. Rise Time = 7ns max. Input Impedance = 1 magohm. 22pF
2. Rise time = 10ns max. Source Impedance = 50 ohms

SET TIME BASE FOR 50/100ns/cm