DEC

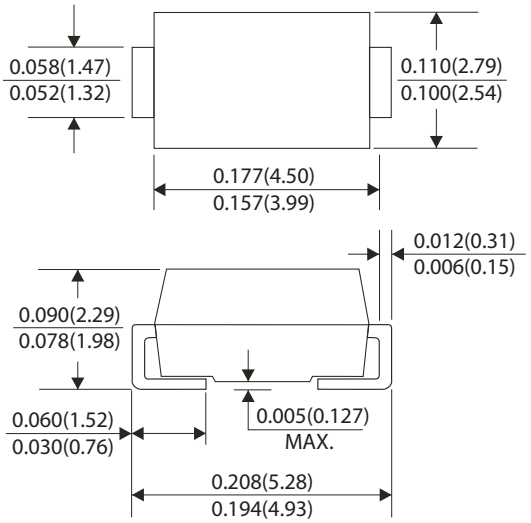
RS1A THRU RS1K

CURRENT 1.0 Ampere
VOLTAGE 50 to 800 Volts

Features

- For surface mounted applications in order optimize board space
- Low profile package
- Built-in strain relief, ideal for automated placement
- Fast switching speed
- Plastic package has Unerwrites Laboratory Flammability Classification 94V-0
- Low forward voltage drop
- Glass passivated chip junction
- High temperature soldering : 250℃/10 seconds, at terminals

DO-214AC (SMA)



Dimensions in inches and (millimeters)

Mechanical Data

- Case : JEDEC SMA(DO-214AC) molded plastic body
- Terminals : Solder plated solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.002 ounce, 0.064 gram

Maximum Ratings And Electrical Characteristics

(Ratings at 25℃ ambient temperature unless otherwise specified, Single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%)

	Symbols	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	Volts
Maximum average forward rectified current at T_L=90℃	$I_{(AV)}$	1.0						Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) at T_L=90℃	I_{FSM}	30.0						Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.30						Volts
Maximum DC reverse current at rated DC blocking voltage T_A=25℃	I_R	5.0						μA
Maximum DC reverse current at rated DC blocking voltage T_A=125℃	I_R	50						μA
Maximum reverse recovery time (Note 1)	trr	150				250	500	ns
Typical thermal resistance (Note 3)	$R\theta_{JL}$ $R\theta_{JA}$	35.0 105.0						℃/W
Typical junction capacitance (Note 2)	C_J	10.0					7.0	pF
Operating junction and storage temperature range	T_J T_{STG}	-55 to +150						℃

Notes:
(1) Test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.
(2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.
(3) Thermal resistance from junction to ambient and from junction to lead mounted on PCB mounted on 0.2×0.2"(5.0×5.0mm) copper pad areas

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RATINGS AND CHARACTERISTIC CURVES RS1A THRU RS1K

FIG.1-FORWARD CURRENT DERATING CURVE

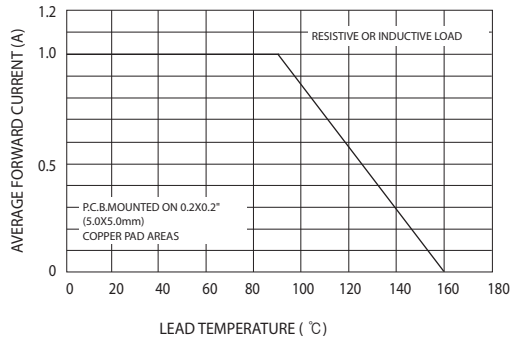

FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

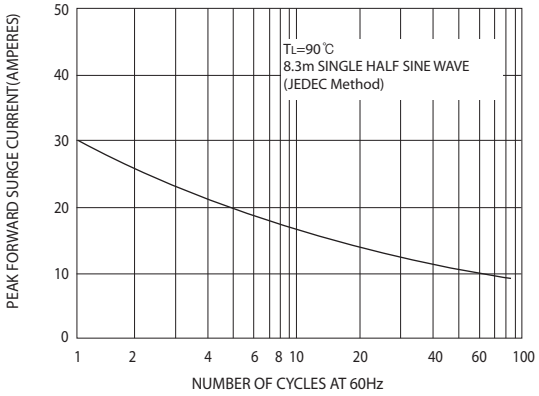

FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

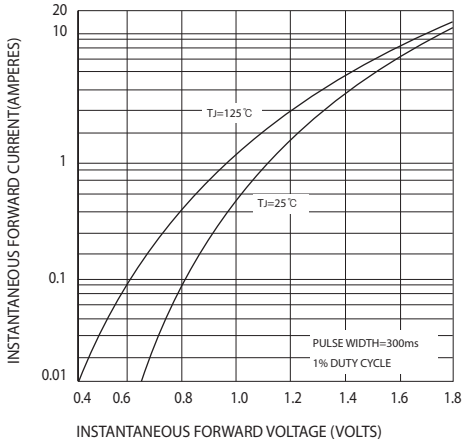

FIG.4-TYPICAL JUNCTION CAPACITANCE

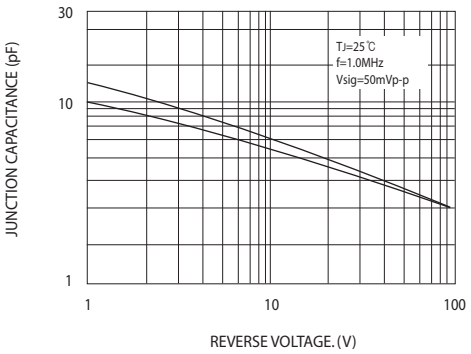

FIG.5-TYPICAL REVERSE CHARACTERISTICS

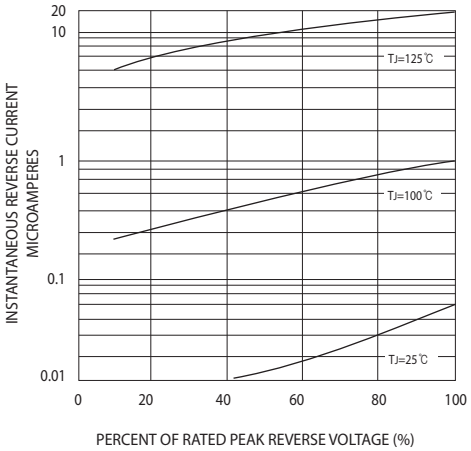

FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE