

Kingtronics®

RS1A THRU RS1M

SURFACE MOUNT ULTRA FAST RECTIFIER

REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 1.0 Ampere

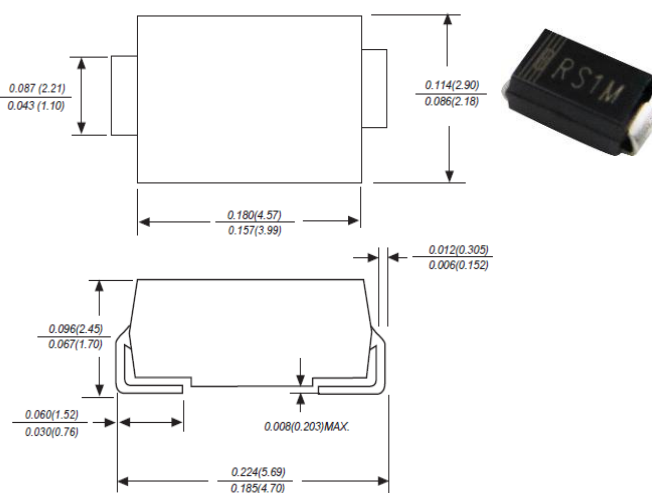
FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Fast switching for high efficiency
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

MECHANICAL DATA

- Case: JEDEC SMA-J molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any

SMA-J



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified, Dimensions in inches and (millimeters)
 Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load derate current by 20%

PARAMETER	SYMBOL	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS Voltage	V_{RMS}	100	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 at $T_L=75^\circ\text{C}$	$I_{(AV)}$	1.0							Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.3							VOLTS
Maximum DC Reverse Current $T_A=25^\circ\text{C}$ at Rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	5.0 50.0							μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	150				250	500	ns	
Typical Junction Capacitance (Note 2)	C_J	15.0							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	50.0							$^\circ\text{C/W}$
Operating junction and Storage temperature range	T_J, T_{STG}	-65 to +150							$^\circ\text{C}$

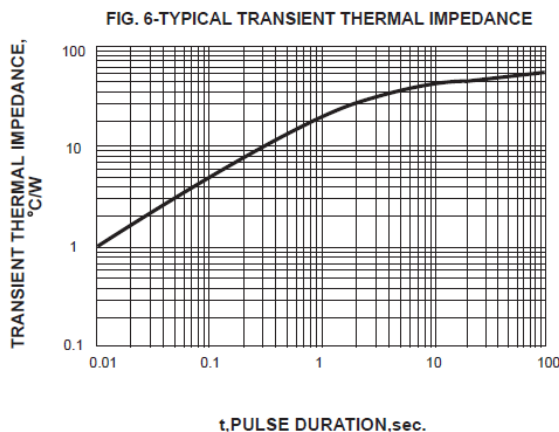
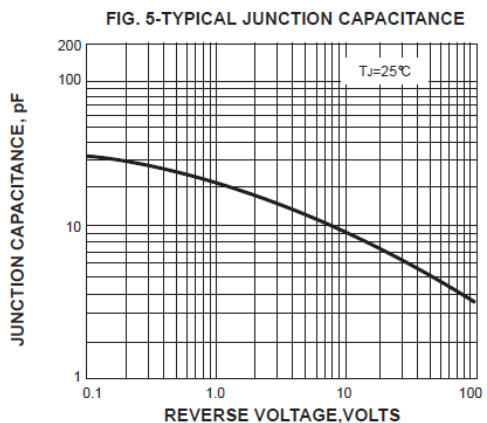
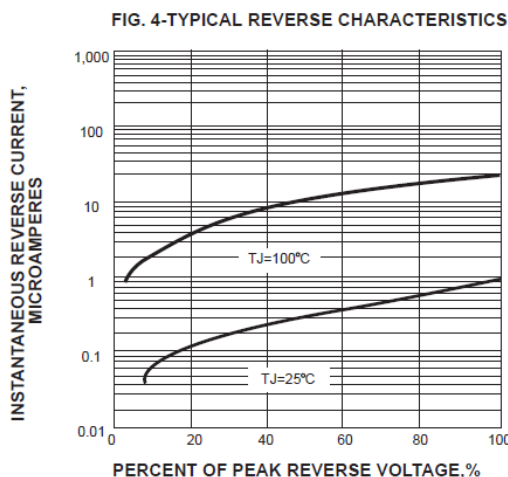
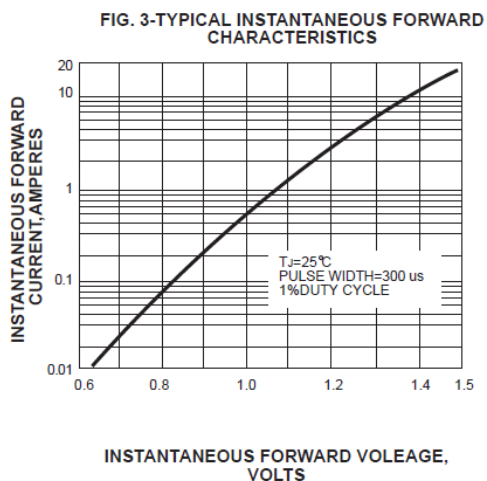
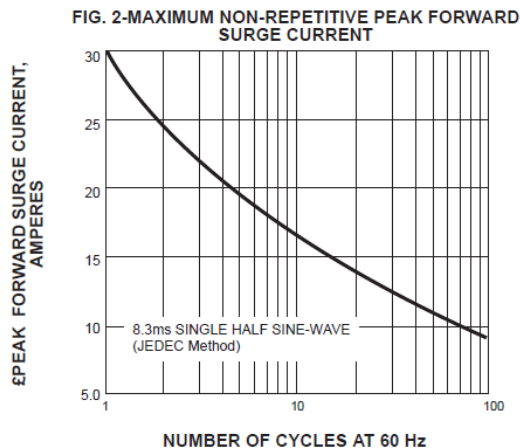
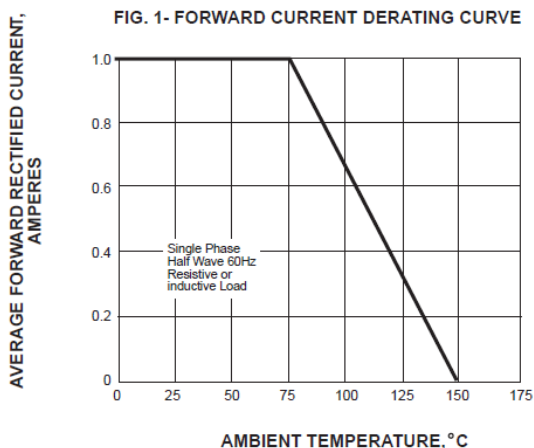
- 1- Reverse recovery condition $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$
- 2-Measured at 1MHz and applied reverse voltage of 4.0V D.C.
- 3- P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

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RATINGS AND CHARACTERISTIC CURVES



Note: Specifications are subject to change without notice.

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