Kingtronics®

S1A THRU S1M

GENERAL PURPOSE RECTIFIER

REVERSE VOLTAGE 50 to 1000 Volts **FORWARD CURRENT** 1.0 Ampere

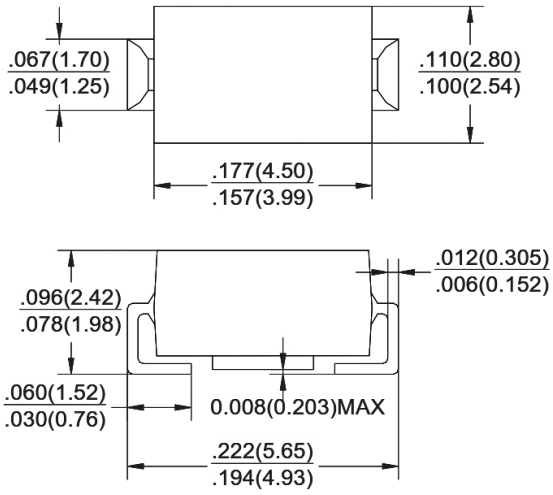
FEATURES

Low forward voltage drop
Low leakage current
High forward surge capability

MECHANICAL DATA

Case: SMA-J mold plastic
Epoxy: UL94V-0 rate flame retardant
Polarity: Indicated by cathode band
Lead: Solder plated, solderable per MIL-STD-750 method 2026
Mounting position: Any

SMA - J (DO-214AC)



Dimensions in inches and (millimeters)

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 current by 20%

PARAMETER		SYMBOL	S1A	S1B	S1D	S1G	S1J	S1K	S1M	UNIT
Maximum Recurrent 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 at T_A=75℃		$I_{(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A		V_F	1.0							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A = 25℃	I_R	5							uA
	T_A = 125℃		50							
Typical Junction Capacitance (NOTE 1)		C_J	12							pF
Typical Thermal Resistance (NOTE 2)		$R_{\theta JA}$	55							℃ /W
Operating Junction and Storage Temperature Range		T_J,T_{stg}	-55 to +150							℃

1- Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
2- Thermal Resistance from Junction to Ambient at. 8.0×8.0mm^2 copper pad areas.

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RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

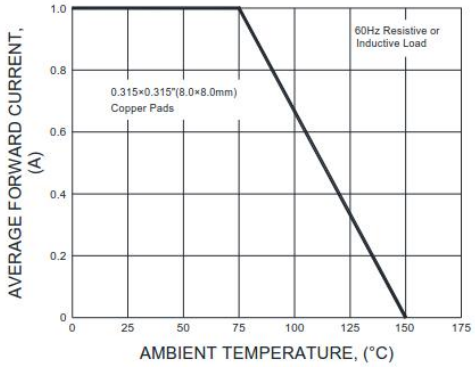


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

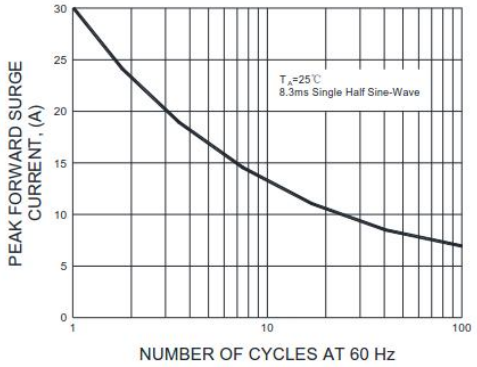


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

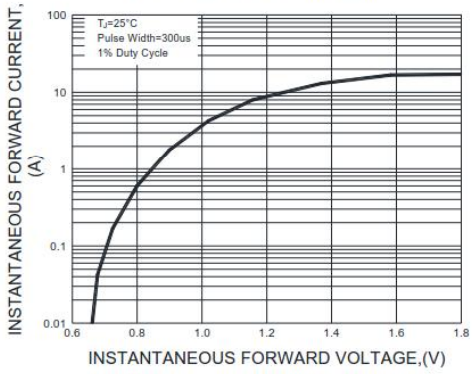


FIG.4-TYPICAL REVERSE CHARACTERISTICS

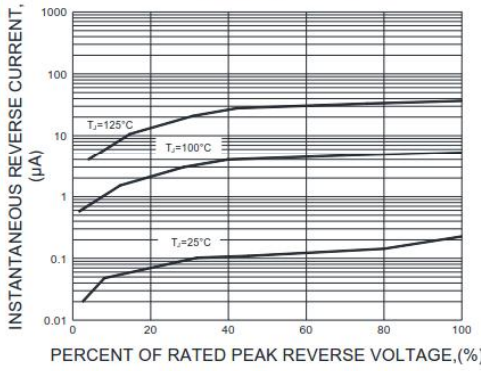
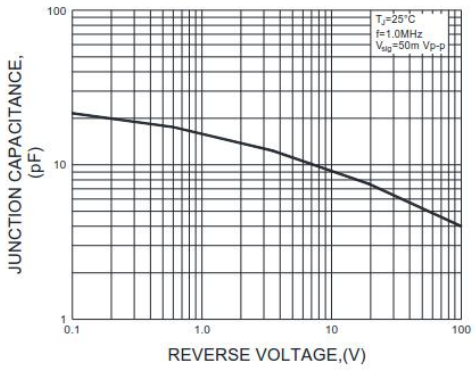


FIG.5-TYPICAL JUNCTION CAPACITANCE



Note: Specifications are subject to change without notice.