# Kingtronics®

### RS3A THRU RS3M

## SURFACE MOUNT FAST SWITCHING RECTIFIER REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 3.0 Ampere

#### **FEATURES**

The plastic package carries Underwriters Laboratory Flammability Classification 94V-0 Low profile surface mount package Built-in strain relief Fast switching for high efficiency Glass passivated chip junction High temperature soldering 250°C/10 second at terminals

#### **MECHANICAL DATA**

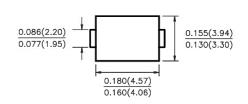
Case: JEDED DO-214AA molded plastic over

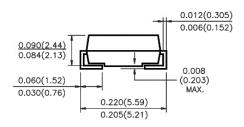
glass passivated chip

Terminals: Solder plated, solderable per MIL-STD-750, method 2026

Polarity: Color band denotes cathode end

#### **DO-214AA (SMB)**





#### **MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

#### **Dimensions in inches and (millimeters)**

	SYMBOLS	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	VOLTS
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	VOLTS
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at TL= 90°C	I <sub>(AV)</sub>	3.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) TL= 90°C	I <sub>FSM</sub>	100							Amps
Typical Thermal Resistance (Note 1)	Rеja	55							- °C∕W
	Røjl	18							
Operating junction and Storage Temperature Range	Т <sub>Ј</sub> ,Тѕтс	-55 to +150							$^{\circ}$

#### **ELECTRICAL CHARACTERISTICS**

		SYMBOLS	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	UNIT
Maximum Instantaneous Forward Voltage at 3.0A		VF	1.30							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	T <sub>A</sub> = 25°C	I <sub>R</sub>	5.0							uA
	T <sub>A</sub> =125℃		50							
Typical Reverse Recovery Time at I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>RR</sub> =0.25A	•	t <sub>rr</sub>		1	50		250	50	00	ns

<sup>1-</sup> Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with  $0.27 \times 0.27''$  (7.0  $\times$  7.0mm) copper pad areas.

#### Kingtronics ® International Company

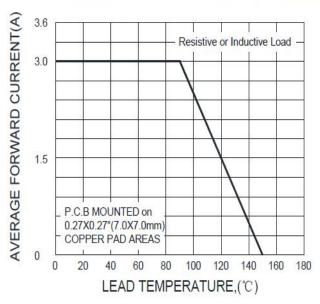
Website: www.kingtronics.com Email: info@kingtronics.com Tel: (852) 8106 7033 Fax: (852) 8106 7099

# Kingtronics<sup>®</sup>

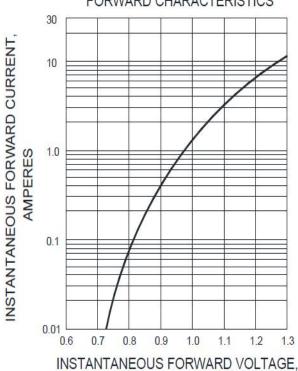
### RS3A THRU RS3M

#### RATINGS AND CHARACTERISTIC CURVES

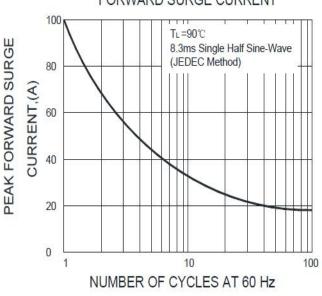




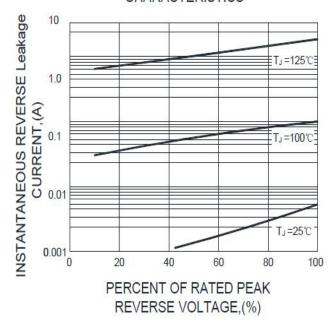
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



F1G.4-TYPICAL REVERSE CHARACTERISTICS



Note: Specifications are subject to change without notice.

#### Kingtronics® International Company

Website: www.kingtronics.com Email: info@kingtronics.com Tel: (852) 8106 7033 Fax: (852) 8106 7099