

# Kingtronics®

# RS2A THRU RS2M

## SURFACE MOUNT FAST SWITCHING RECTIFIER

**REVERSE VOLTAGE** 50 to 1000 Volts    **FORWARD CURRENT** 2.0 Ampere

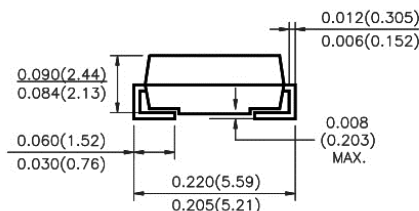
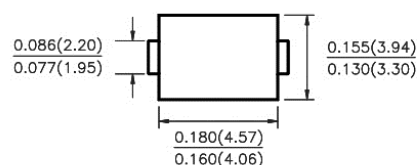
### FEATURES

- 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

Ratings at 25°C ambient temperature unless otherwise specified ,

Dimensions in inches and (millimeters)

### MAXIMUM RATINGS & THERMAL CHARACTERISTICS

	SYMBOLS	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	UNIT
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 at $T_L = 90^\circ C$	$I_{(AV)}$	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) $T_L = 90^\circ C$	$I_{FSM}$	50							Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	55							°C/W
	$R_{\theta JL}$	18							
Operating junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							°C

### ELECTRICAL CHARACTERISTICS

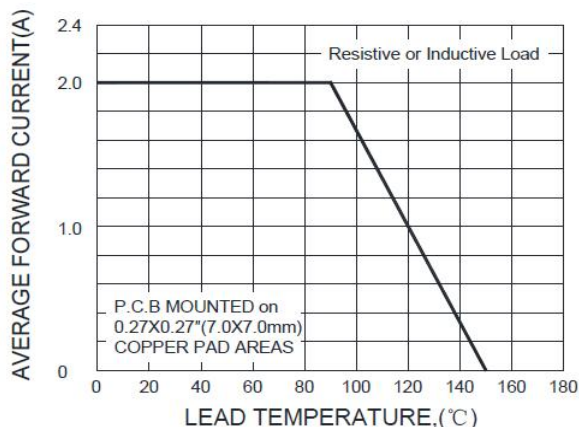
	SYMBOLS	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	UNIT
Maximum Instantaneous Forward Voltage at 1.5A	$V_F$	1.30							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	$I_R$	$T_A = 25^\circ C$							uA
		$T_A = 125^\circ C$							
Typical Reverse Recovery Time at $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$	$t_{rr}$	150				250	500		ns
Typical junction capacitance at 4.0V, 1MHz	$C_J$	20				17			PF

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

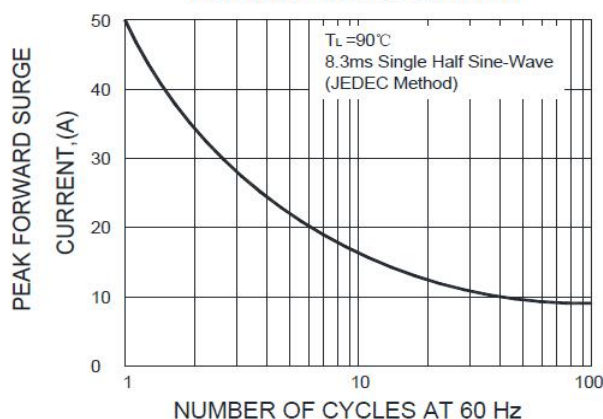
**Kingtronics® International Company**

## RATINGS AND CHARACTERISTIC CURVES

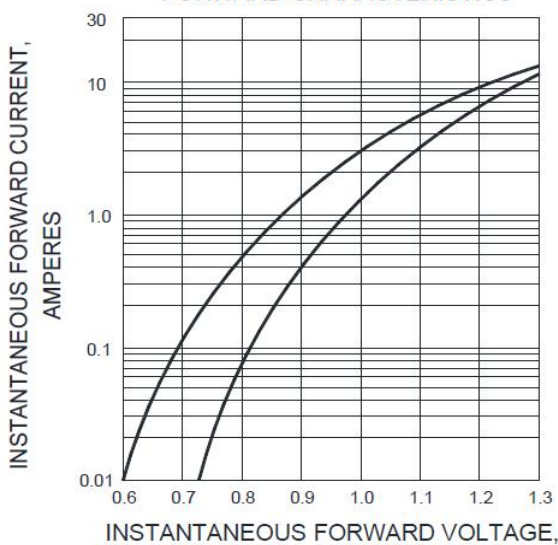
F1G.1-FORWARD CURRENT DERATING CURVE



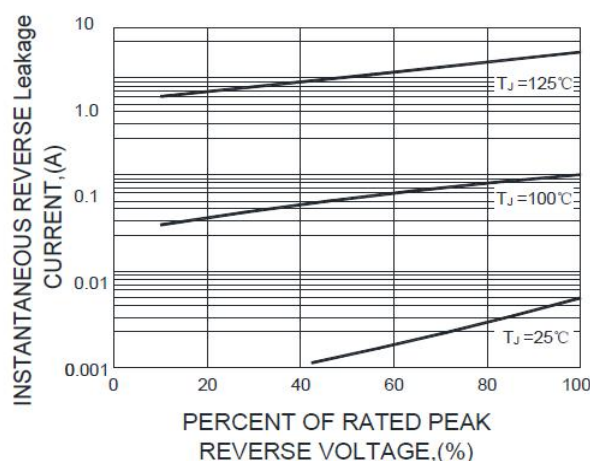
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



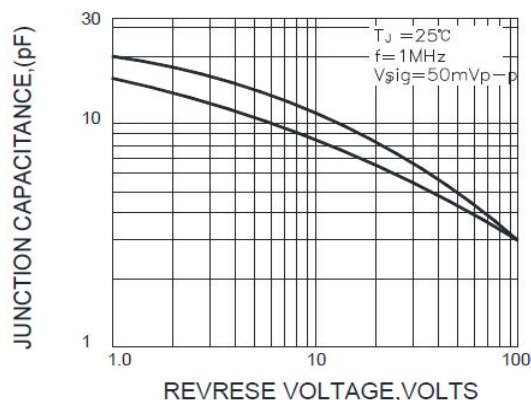
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



Note: Specifications are subject to change without notice.