



# SHENZHEN FAITH TECHNOLOGY CO.,LTD

## SURFACE MOUNT FAST SWITCHING RECTIFIER

**RS2A THRU RS2M**

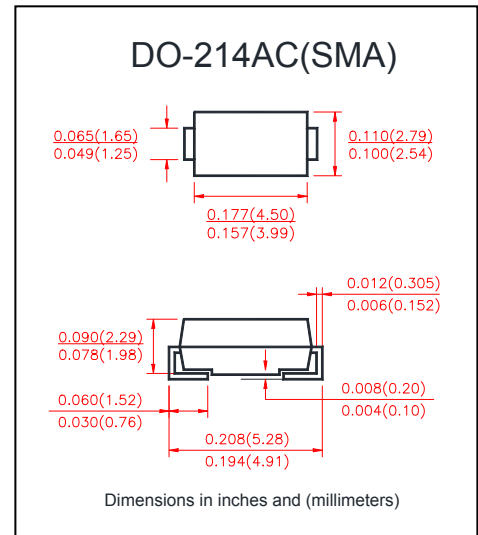
**VOLTAGE RANGE**      **50 to 1000 Volts**  
**CURRENT**              **2.0 Ampere**

### FEATURES

- Plastic package has underwrites 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-214AC molded plastic over glass passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified

### MAXIMUM RATINGS & THERMAL CHARACTERISTICS

	SYMBOLS	RS 2A	RS 2B	RS 2D	RS 2G	RS 2H	RS 2K	RS 2M	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 $T_L=90^\circ\text{C}$	$I_{F(AV)}$	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) $T_L=90^\circ\text{C}$	$I_{FSM}$	50							Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	105							°C/W
	$R_{\theta JL}$	32							
Operating junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							°C

### ELECTRICAL CHARACTERISTICS

	SYMBOLS	RS 2A	RS 2B	RS 2D	RS 2G	RS 2J	RS 2K	RS 2M	UNIT
Maximum Instantaneous Forward Voltage at 1.5A	$V_F$	1.30							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	$I_R$	$T_A = 25^\circ\text{C}$							$\mu\text{A}$
		$T_A = 125^\circ\text{C}$							
Typical Reverse Recovery Time at $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RR}=0.25\text{A}$	$t_{rr}$	150				250	500		ns
Typical junction capacitance at 4.0V, 1MHz	$C_J$	30							pF

#### Notes:

1. Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with 0.2×0.2" (5.0 × 5.0mm) copper pad areas.



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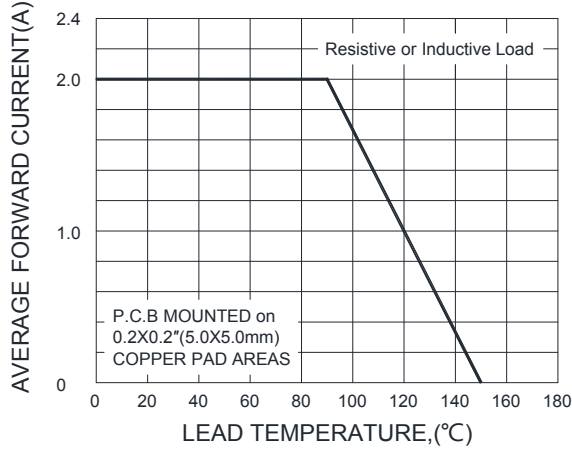
RS2A THRU RS2M

VOLTAGE RANGE 50 to 1000 Volts

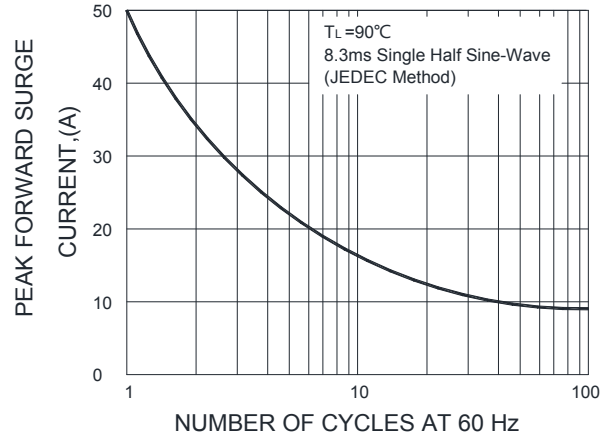
CURRENT 2.0 Ampere

### RATINGS AND CHARACTERISTIC CURVES

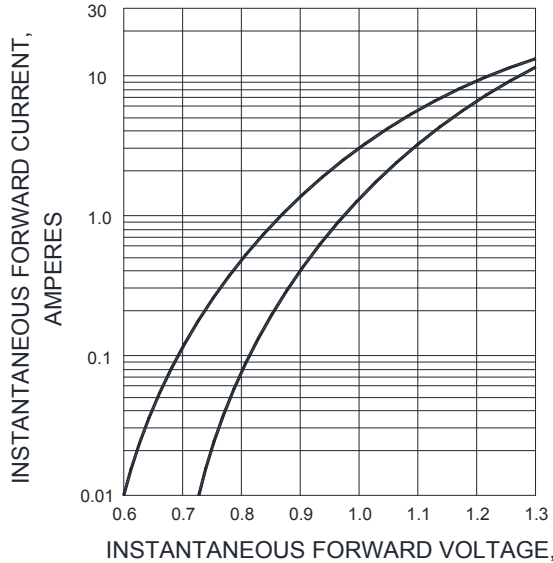
F1G.1-FORWARD CURRENT DERATING CURVE



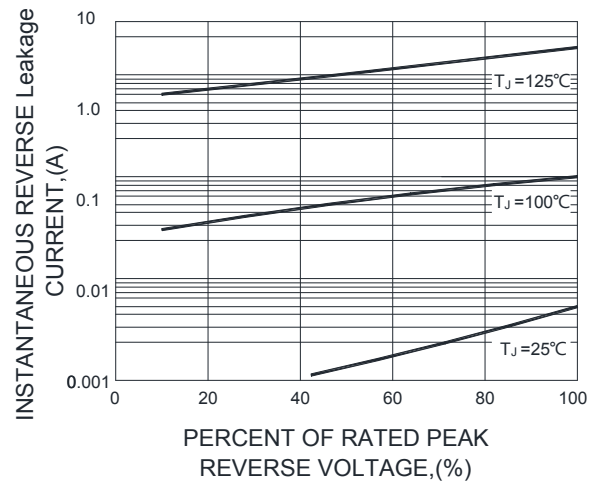
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



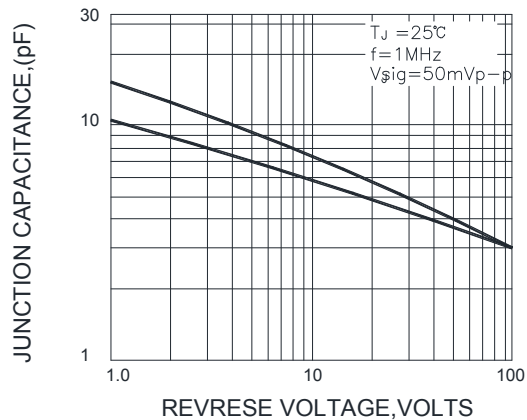
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

