



# SHENZHEN FAITH TECHNOLOGY CO.,LTD

## SURFACE MOUNT FAST SWITCHING RECTIFIER

### RS3A THRU RS3M

**VOLTAGE RANGE** 50 to 1000 Volts

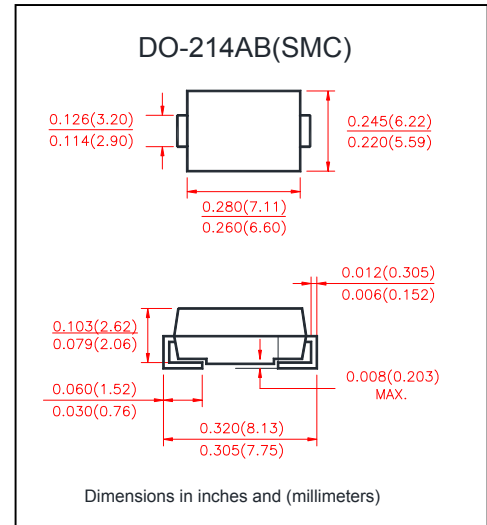
**CURRENT** 3.0 Ampere

### 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-214AB 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	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	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	$I_{F(AV)}$	3.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	100							Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	50							°C/W
	$R_{\theta JL}$	15							
Operating junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							°C

### ELECTRICAL CHARACTERISTICS

	SYMBOLS	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	UNIT
Maximum Instantaneous Forward Voltage at 3.0A	$V_F$	1.30							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	$T_A = 25^\circ C$	5.0							$\mu A$
	$T_A = 125^\circ C$	50							
Typical Reverse Recovery Time at $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$	$t_{tr}$	150				250	500	ns	

### Notes:

1. Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with 0.3×0.3" (8.0 × 8.0mm) copper pad areas.



# SHENZHEN FAITH TECHNOLOGY CO.,LTD

## SURFACE MOUNT FAST SWITCHING RECTIFIER

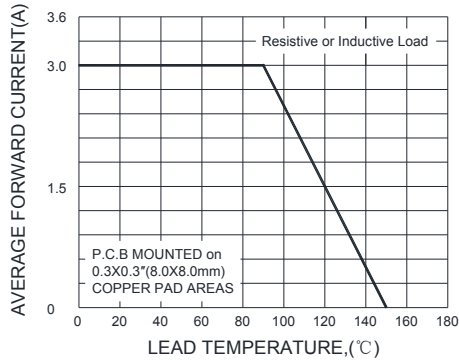
RS3A THRU RS3M

VOLTAGE RANGE 50 to 1000 Volts

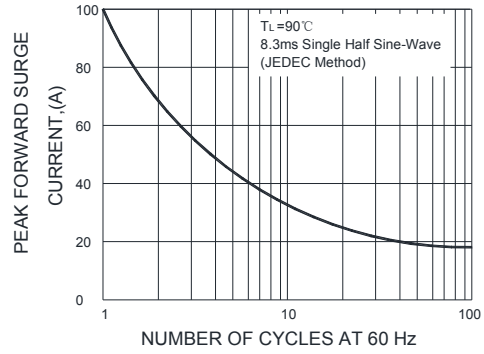
CURRENT 3.0 Ampere

### RATINGS AND CHARACTERISTIC CURVES

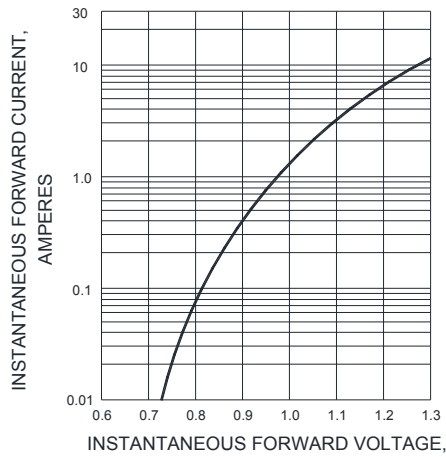
F1G.1-FORWARD CURRENT DERATING CURVE



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



F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS

