



# SHENZHEN FAITH TECHNOLOGY CO.,LTD

## SURFACE MOUNT RECTIFIER

S8A THRU S8M

VOLTAGE RANGE 50 to 1000 Volts

CURRENT 5.0 Ampere

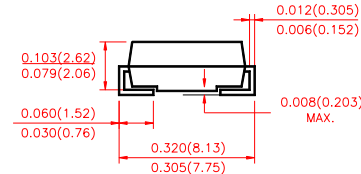
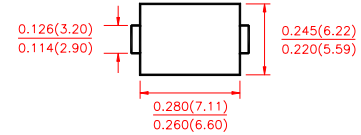
### FEATURES

- Plastic package has underwrites laboratory flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief, ideal for automated placement
- 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
- Weight: 0.007ounce, 0.25 gram

DO-214AB(SMC)



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified

	SYMBOLS	S8A	S8B	S8D	S8G	S8J	S8K	S8M	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 $T_L=100^\circ\text{C}$ (NOTE 3)	$I_{(AV)}$	8.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) $T_L=100^\circ\text{C}$	$I_{FSM}$	175							Amps
Maximum Instantaneous Forward Voltage at 5.0A	$V_F$	1.15							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$	10.0							$\mu\text{A}$
	$T_A = 125^\circ\text{C}$	250							
Typical Reverse Recovery Time (NOTE 1)	$t_{rr}$	2.5							$\mu\text{s}$
Typical junction capacitance (NOTE 2)	$C_J$	60							pF
Typical Thermal Resistance (NOTE 3)	$R_{\theta JL}$	47							$^\circ\text{C}/\text{W}$
	$R_{\theta JA}$	13							
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

#### Notes:

1. Reverse recovery test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=0.25\text{A}$
2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts
3. Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B.with  $0.3 \times 0.3''$  ( $8.0 \times 8.0\text{mm}$ ) copper pad areas.



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## RATINGS AND CHARACTERISTIC CURVES S5A THRU S5M

FIG. 1- DERATING CURVE  
OUTPUT RECTIFIED CURRENT

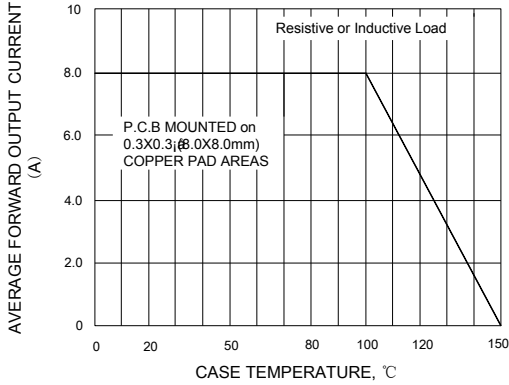


FIG. 2- MAXIMUM NON-REPETITIVE PEAK  
FORWARD SURGE CURRENT PER LEG

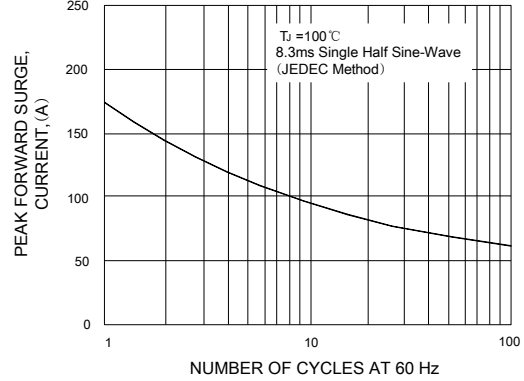


FIG.3-TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS

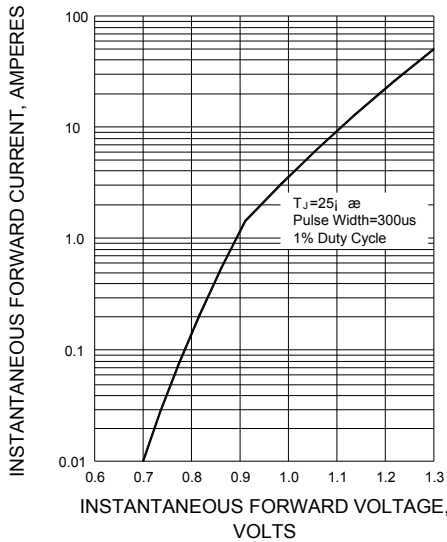


FIG.4-TYPICAL REVERSE  
CHARACTERISTICS

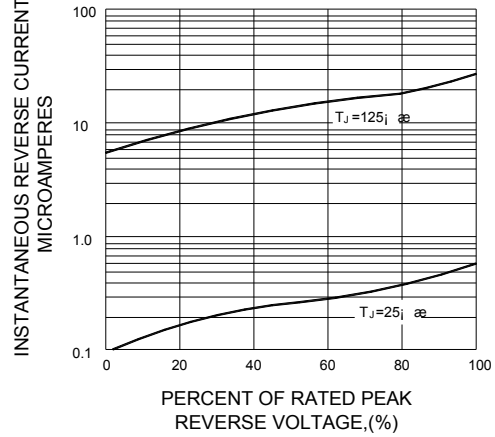


FIG.5-TYPICAL JUNCTION CAPACITANCE

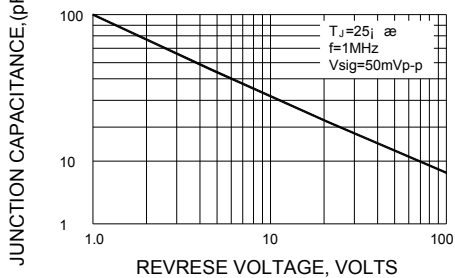


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

